



Includes Online Assessments

**Sixth Edition**

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# **Certified Coding Specialist (CCS) Exam Preparation**

**Jennifer Hornung Garvin**

**PhD, MBA, RHIA, CCS, CPHQ, CTR, FAHIMA**

**AHIMA**  
American Health Information  
Management Association®



Sixth Edition

# Certified Coding Specialist (CCS) Exam Preparation

Jennifer Hornung Garvin, PhD, MBA, RHIA, CCS, CPHQ, CTR, FAHIMA

Combining in-depth study materials covering CPT, HCPCS Level II, and newly incorporated ICD-10-CM and ICD-10-PCS content with comprehensive testing practice, *Certified Coding Specialist (CCS) Exam Preparation* provides the added knowledge and test-taking skills to face the CCS certification exam with confidence. The practice exams, supplemental practice questions, case studies, and online assessments will help prepare you for the exam experience, providing opportunities to test your knowledge and skills. In addition, the newly added ICD-10 content will allow you to prepare for the transition to updated examinations launching on October 5, 2015.

#### CCS Domains:

- Domain I: Health Information Documentation
- Domain II: Diagnosis Coding and Procedure Coding
- Domain III: Regulatory Guidelines and Reporting Requirements for Acute Care (Inpatient) Service
- Domain IV: Regulatory Guidelines and Reporting Requirements for Outpatient Services
- Domain V: Data Quality and Management
- Domain VI: Information and Communication Technologies
- Domain VII: Privacy, Confidentiality, Legal, and Ethical Issues
- Domain VIII: Compliance

#### KEY FEATURES

- Contains ICD-10-CM/PCS codes
- Two complete practice exams based on and organized by the CCS competency statements and tasks
- Inpatient and outpatient medical cases
- Online assessment contains 260+ multiple choice and multiple select questions

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PRESS



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# Contents

About the Author.....	v
Acknowledgments.....	vi
About the CCS Exam.....	vii
How to Use This Book and Online Assessments.....	xi
About the Online Assessments.....	xii
<b>Introduction</b>	
Steps for Success.....	1
Make Plans for CCS Success.....	1
Self-Evaluation Notes.....	2
Coding Challenges.....	2
ICD-10-CM Review.....	3
ICD-10-PCS Review.....	7
MS-DRGs and Case Mix.....	14
CPT Review.....	15
Common Diseases and Disorders with Associated Drugs.....	17
Procedures for Coding Medical Record Cases for the CCS Examination.....	19
Evaluation and Management Mapping.....	21
E/M Mapping Exercise—Emergency Department Record.....	22
Coding Exercises.....	23
<b>Practice Questions</b>	
Multiple Choice Questions.....	26
Practice Case Studies.....	48
<b>Practice Exam 1</b>	
Multiple Choice Questions.....	114
Practice Case Studies.....	138
<b>Practice Exam 2</b>	
Multiple Choice Questions.....	184
Practice Case Studies.....	208
<b>Answer Key</b>	
<b>Introduction</b>	
Case-Mix Exercise.....	244
E/M Mapping Exercise.....	244
Coding Exercises.....	244
<b>Practice</b>	
Multiple Choice.....	246
Practice Case Studies.....	253



## **Contents**

<b>Practice Exam 1</b>	
Multiple Choice .....	265
Practice Case Studies .....	274
<b>Practice Exam 2</b>	
Multiple Choice .....	282
Practice Case Studies .....	290
<b>References</b> .....	299
<b>Online Assessments</b>	
Practice Multiple Choice Questions and Answers	
Practice Exam 1 Multiple Choice Questions and Answers	
Practice Exam 2 Multiple Choice Questions and Answers	



## About the CCS Exam

Coding professionals who pass the certified coding specialist (CCS) exam are professionals skilled in classifying medical data from patient records, generally in the hospital setting. These coding practitioners review patients' records and assign numeric codes for each diagnosis and procedure. To perform this task, they must possess expertise in the ICD-10-CM/PCS and CPT coding systems. In addition, the CCS is knowledgeable of medical terminology, disease processes, and pharmacology. Hospitals or medical providers report coded data to insurance companies, or to the government in the case of Medicare and Medicaid recipients, for reimbursement of expenses. Researchers and public health officials also use coded medical data to monitor patterns and explore new interventions. Coding accuracy is thus highly important to healthcare organizations because of its impact on revenues and describing health outcomes, and in fact, certification is becoming an implicit industry standard. Accordingly, the CCS credential demonstrates tested data quality and integrity skills in a coding practitioner. The CCS certification exam assesses mastery proficiency in coding rather than entry-level skills. Professionals experienced in coding inpatient and outpatient records should consider obtaining this certification. For exam eligibility requirements, visit [ahima.org/certification](http://ahima.org/certification).

The National Commission for Certifying Agencies (NCCA) has granted accreditation to AHIMA's certified coding specialist (CCS) certification program for demonstrating compliance with the NCCA Standards for the Accreditation of Certification Programs. NCCA is the accrediting body of the Institute for Credentialing Excellence (formerly the National Organization for Competency Assurance).

The NCCA Standards were created in 1977 and updated in 2003 to ensure that certification programs adhere to modern standards of practice for the certification industry. AHIMA joins an elite group of more than 100 organizations representing more than 200 programs that have received and maintained NCCA accreditation. More information on the NCCA is available online at <http://www.credentialingexcellence.org/ncca>.

## Certified Coding Specialist (CCS) Examination Content Outline

Number of Questions on exam:

- 97 multiple-choice questions (79 scored/18 pretest)
- 8 medical scenarios (6 scored/2 pretest)

Exam Time: 4 hours – no breaks

### Domain I – Health Information Documentation (8–10%)

Tasks:

1. Interpret health record documentation using knowledge of anatomy, physiology, clinical indicators and disease processes, pharmacology and medical terminology to identify codeable diagnoses and/or procedures
2. Determine when additional clinical documentation is needed to assign the diagnosis and/or procedure code(s)
3. Consult with physicians and other healthcare providers to obtain further clinical documentation to assist with code assignment
4. Compose a compliant physician query
5. Consult reference materials to facilitate code assignment



6. Identify patient encounter type
7. Identify and post charges for healthcare services based on documentation

## Domain II – Diagnosis & Procedure Coding (64–68%)

### Tasks:

#### Diagnosis:

1. Select the diagnoses that require coding according to current coding and reporting requirements for acute care (inpatient) services
2. Select the diagnoses that require coding according to current coding and reporting requirements for outpatient services
3. Interpret conventions, formats, instructional notations, tables, and definitions of the classification system to select diagnoses, conditions, problems, or other reasons for the encounter that require coding
4. Sequence diagnoses and other reasons for encounter according to notations and conventions of the classification system and standard data set definitions (such as Uniform Hospital Discharge Data Set [UHDDS])
5. Apply the official ICD-9-CM coding guidelines

#### Procedure:

1. Select the procedures that require coding according to current coding and reporting requirements for acute care (inpatient) services
2. Select the procedures that require coding according to current coding and reporting requirements for outpatient services
3. Interpret conventions, formats, instructional notations, and definitions of the classification system and/or nomenclature to select procedures/services that require coding
4. Sequence procedures according to notations and conventions of the classification system/ nomenclature and standard data set definitions (such as UHDDS)
5. Apply the official ICD-9 procedure coding guidelines
6. Apply the official CPT/HCPCS Level II coding guidelines

## Domain III – Regulatory Guidelines and Reporting Requirements for Acute Care (Inpatient) Service (6–8%)

### Tasks:

1. Select the principal diagnosis, principal procedure, complications, comorbid conditions, other diagnoses and procedures that require coding according to UHDDS definitions and Coding Clinic
2. Assign the present on admission (POA) indicators
3. Evaluate the impact of code selection on Diagnosis Related Group (DRG) assignment
4. Verify DRG assignment based on Inpatient Prospective Payment System (IPPS) definitions
5. Assign and/or validate the discharge disposition



## **Domain IV-Regulatory Guidelines and Reporting Requirements for Outpatient Services (6–8%)**

### **Tasks:**

1. Select the reason for encounter, pertinent secondary conditions, primary procedure, and other procedures that require coding according to UHDDS definitions, CPT Assistant, Coding Clinic, and HCPCS
2. Apply Outpatient Prospective Payment System (OPPS) reporting requirements:
  - a. Modifiers
  - b. CPT/ HCPCS Level II
  - c. Medical necessity
  - d. Evaluation and Management code assignment (facility reporting)
3. Apply clinical laboratory service requirements

## **Domain V-Data Quality and Management (2–4%)**

### **Tasks:**

1. Assess the quality of coded data
2. Communicate with healthcare providers regarding reimbursement methodologies, documentation rules, and regulations related to coding
3. Analyze health record documentation for quality and completeness of coding
4. Review the accuracy of abstracted data elements for database integrity and claims processing
5. Review and resolve coding edits such as Correct Coding Initiative (CCI), Medicare Code Editor (MCE) and Outpatient Code Editor (OCE)

## **Domain VI-Information and Communication Technologies (1–3%)**

### **Tasks:**

1. Use computer to ensure data collection, storage, analysis, and reporting of information.
2. Use common software applications (for example, word processing, spreadsheets, and e-mail) in the execution of work processes
3. Use specialized software in the completion of HIM processes

## **Domain VII-Privacy, Confidentiality, Legal, and Ethical Issues (2–4%)**

### **Tasks:**

1. Apply policies and procedures for access and disclosure of personal health information
2. Apply AHIMA Code of Ethics/Standards of Ethical Coding
3. Recognize and report privacy and/or security concerns
4. Protect data integrity and validity using software or hardware technology



## Domain VIII-Compliance (2–4%)

### Tasks:

1. Evaluate the accuracy and completeness of the patient record as defined by organizational policy and external regulations and standards
2. Monitor compliance with organization-wide health record documentation and coding guidelines
3. Recognize and report compliance concerns

## Exam Specifications

The CCS exam consists of the following item types:

- **Theory:** 97 multiple choice theory questions appear first (Domains I–VIII)
- **Application:** 8 medical scenarios (Domain II only)

The total testing time for the CCS exam is 4 hours. Be sure to pace yourself during the exam and use your time wisely.

Instructions and official guidelines for coding medical records are included in the following resources: ICD-10-CM and ICD-10-PCS, CPT, UHDDS, *Coding Clinic*, and *CPT Assistant*. However, hospitals and other organizations may develop their own procedures in the absence of approved guidelines. To ensure consistent coding, the specific coding instructions have been developed for use during the CCS exam. The exam coding instructions do not supersede or replace official coding advice and guidelines included in the recommended exam study resources ([ahima.org/certification](http://ahima.org/certification)). For Procedures for Coding Medical Record Cases for the CCS Exam, see pages 19–22 in the Introduction of this book.

The Commission on Certification for Health Informatics and Information Management (CCHIIM) manages and sets the strategic direction for the certifications. Pearson Vue is the exclusive provider of AHIMA certification exams. To see sample questions and images of the new exam format, visit [ahima.org/certification](http://ahima.org/certification).

## What Books to Bring

For candidates taking the CCS certification exam after **October 5, 2015**, candidates must bring a 2015 draft or 2016 version of the ICD-10-CM code book and the ICD-10-PCS code book, and the 2015 American Medical Association CPT code book. (Only the AMA code book is permitted.) A medical dictionary is optional. For a full list of allowable ICD-10 code books, please see AHIMA's Certification website at <http://www.ahima.org/certification/CCS>.

*Candidates without the required code books will not be permitted to test and will forfeit their application fees.* Candidates who do not bring all the required books, or whose books do not have the correct year, will *not* be allowed to test. **For the most up-to-date exam information, visit [ahima.org/certification](http://ahima.org/certification).**



## How to Use This Book and Online Assessments

The CCS practice questions and practice exams in this book test knowledge of content pertaining to the CCS competencies published by AHIMA and available at [ahima.org/certification](http://ahima.org/certification). The multiple choice practice questions and practice medical cases along with two practice exams are presented in a similar format to what might be found on the CCS exam.

This book contains a practice section that includes 74 practice multiple choice questions, and 12 practice medical scenarios along with two complete practice exams, each comprised of 97 multiple choice questions and 8 medical scenarios. (Additional coding exercises can also be found in the Introduction of this book.) Each multiple choice question is identified with one of the eight CCS domains, so you will be able to determine whether you need knowledge or skill building in particular areas of the exam domains. The multiple select questions cover only domain II. All answers include rationales and references for further guidance. Pursuing these references will help you build your knowledge and skills in specific domains.

To most effectively use this book, work through all of the practice questions first. This will help you identify areas in which you may need further preparation. For the questions that you answer incorrectly, read the associated references to help refresh your knowledge. After going through the practice questions, take one of the practice exams. Again, for the questions that you answer incorrectly, refresh your knowledge by reading the associated references and study resources.

The online assessments contain the same multiple choice and multiple select questions from the book. The practice questions and practice exams can be presented in random order, or you may choose to go through the questions in sequential order by domain. You may also choose to practice or test your skills on specific domains. For example, if you would like to build your skills in domain II, you may choose only that domain's questions for a given practice session.



## About the Online Assessments

The online assessments accompanying this book contain 267 practice multiple choice items covering all eight CCS domains. In addition, there are 31 inpatient and ambulatory case studies.



## Introduction

The purpose of this book is to provide practice exercises for the certified coding specialist (CCS) exam through a review of important ICD-10-CM/PCS and CPT coding material. Two simulations of the CCS exam are included in this book to help you improve test performance within the context of the four-hour exam. The content of this book is not intended to predict what will be on the CCS exam, and utilizing *CCS Exam Preparation* does not guarantee a passing score. However, *CCS Exam Preparation* does provide a focused method of preparing for the exam through review, practice, and exam simulation.

### Steps for Success

1. Review basic coding principles in coding books and then test yourself via the exercises provided in this book and online assessments.
2. Review relevant American Hospital Association *Coding Clinic* articles. Read as many issues of the *Coding Clinic* as possible but be sure to review the most recent issues related to ICD-10-CM/PCS beginning with the most recent articles and working backward. As noted, the *Coding Clinic* articles used to develop the 2014 CCS exam end with the fourth quarter of 2013.
3. Review the *ICD-10-CM Official Guidelines for Coding and Reporting*, which can be found at <http://www.cdc.gov/nchs/icd/icd10cm.htm#icd2014> as well as the Official Guidelines for ICD-10-PCS which can be found at <http://cms.hhs.gov/Medicare/Coding/ICD10/Downloads/PCS-2014-guidelines.pdf>. The national standards for coding practice are provided in *Coding Clinic* and the *Official Coding Guidelines*. These resources establish the correct answers related to ICD-10-CM and ICD-10-PCS on the CCS exam.
4. Review a CPT educational text and complete exercises for areas in which more skill is needed. Review the guidelines section of each section of the CPT codebook to ensure adequate knowledge of the details of each area.
5. Review the American Medical Association *CPT Assistant* from the most recent issues going backward as far as possible.
6. Complete the introductory exercises and practice questions in this book.
7. To prepare psychologically for the experience of taking the four-hour CCS exam, simulate the experience by completing a practice exam *in one sitting*.

Along with practice questions and case studies, this book contains two practice exams (each with 97 multiple choice questions and 8 medical scenarios.) and additional coding exercises, which appear at the end of this Introduction.

The online assessment contains 97 multiple choice questions and 8 medical scenarios that can be presented in sequential order (by domain) or random order for a more challenging experience.

8. Follow up with the references and other CCS study resources. Ask AHIMA-approved ICD-10-CM/PCS Trainers and CCS-credentialed professionals for clarification on items that are unclear.

For more information on the exam, refer to the About the CCS Exam section earlier in this book or visit [ahima.org/certification](http://ahima.org/certification). Another valuable resource is the AHIMA Engage Communities for CCS Exam Preparation.

### Make Plans for CCS Success

In order to develop a good plan of study, it is important to reflect on what you have read so far. Use a calendar to determine how much time you have to prepare.

- How many hours can you spend per week studying?
- How many weeks do you have to study before the exam? (Exclude weeks when you have personal or family events.)

Good preparation using the steps to success can help you achieve a successful exam experience!



## Self-Evaluation Notes

Each person who studies for the CCS exam has a different skill set. One of the goals for using this book is to determine your areas of weakness. Strategies can then be developed to make weak areas stronger. Take a few minutes to complete this self-evaluation so that your specific needs can be addressed. Use this self-evaluation to help gather resources before working through the remainder of this book.

I need more practice in these areas:

- 1.
- 2.
- 3.

I can strengthen these areas by:

- 1.
- 2.
- 3.

I need these resources to help me:

- 1.
- 2.
- 3.

## Coding Challenges

The following is an outline of potentially challenging coding issues. When possible, obtain the reference materials listed in the back of this book and utilize them. Creating a study schedule and reviewing materials that address your weaknesses will enable you to achieve your goals.

In order to do well on the multiple choice section of this book, reference material related to the exam content should be memorized. It is not possible to memorize everything, so developing a study strategy is important. Be sure to read the About the CCS Exam section earlier in this book to fully understand the exam contents and what should be coded in the medical cases. Determine weak areas and study to improve those areas. Focus on clinical scenarios and reimbursement topics that would apply to the "average" hospital.

Codebooks are allowed during the CCS exam. Refer to the AHIMA Certification website ([ahima.org/certification](http://ahima.org/certification)) for a current list of allowable codebooks. Furthermore, materials in codebooks must be permanently affixed inside your codebooks. Remember, too, that you will need to gain speed using the codebooks because an encoder is not used to assign codes during the exam. In order to hone this skill, practice coding exercises by timing yourself to evaluate your speed and accuracy using actual codebooks.

The following are highlights to remember:

- Because national coding guidelines and references are used for the CCS exam, evaluate your hospital guidelines to identify any difference between the two. Be sure to code according to national guidelines.
- Recent issues addressed in *Coding Clinic* and CPT Assistant are important. Begin your review from the most recent to the oldest issues. Identify areas that are confusing or have been revised over time. Make sure you understand the most recent decisions regarding any particular coding issue.
- Knowledge of MS-DRGs and APCs are important. Which MS-DRGs will be affected by major comorbidities or complications (MCCs) and complications or comorbidities (CCs) is key information. You should have a general idea about common MS-DRGs for the average hospital in the United States and the reimbursement methodology of APCs. For example, what status indicators mean and how to assign evaluation and management (E/M) levels if given a template.
- An understanding of accurate principal diagnosis assignment is key. It is essential to know the disease processes that underlie ethical coding. Much of this knowledge is based in *Coding Clinic* reference material and the Uniform Hospital Discharge Data Set (UHDDS).
- Generally, cases on the exam reflect common cases that a coder in an average hospital would code. Determine if you have a knowledge deficit in any common coding areas because your facility does not treat that type of patient. For example, some facilities do not provide services for newborns, deliveries, heart catheterizations,



coronary artery bypass grafts (CABGs), or neonatal intensive care. If you work in such a facility, you will need to strategize how to gather expertise in these areas. One way to gain expertise is to review the coding exercises in a basic coding book and to use an encoder to determine the MS-DRGs associated with the exercises.

- On the CCS exam, national coding principles are emphasized. Reviewing of the last two years of the *Journal of AHIMA* is a worthwhile endeavor. Be mindful of such topics as future nomenclatures, such as ICD-11, and the Health Insurance Portability and Accountability Act (HIPAA). Also, keep in mind that sometimes coders get into habits that may subtly deviate from coding guidelines. Be on alert and identify any of these habits in order to correct them.

## ICD-10-CM Review

The following is an outline of some of the more important areas to know and it is also important to review the guidelines and notes for all of the chapters in ICD-10-CM because many areas may not be familiar. Please also note the specific chapters where you need to focus more attention in the self assessment on page 2.

## ICD-10-CM

- Be careful to type the correct character of either O or 0 when appropriate. The computer will not recognize an incorrect character.
- Use good coding practice by selecting the diagnostic code using the alphabetic index and then checking the code in the tabular index.
- Be sure to determine if the codes require specification of laterality.
- Check in the tabular for “code also” notes at the beginning of section as well as in the notes for the specific code.

## Urinary System

- Chronic kidney disease, stage 5 requiring chronic dialysis, should be coded to N18.6 End stage renal disease with an additional code to identify dialysis status (Z99.2).

## Infectious Disease

- Review the most recent guidelines regarding severe sepsis; this requires two codes. The first should be the underlying systemic infection and the second should be one from subcategory R65.2. For septic shock, code the underlying systemic infection as well as code R65.21. Additional codes for acute organ dysfunction should also be used.
- Nosocomial infections or hospital acquired infections should have an additional code of Y95.
  - a. Human Immunodeficiency Virus (HIV) Infections
    1. Code only confirmed cases  
Code only confirmed cases of HIV infection/illness. This is an exception to the hospital inpatient guideline Section II, H.  
In the context, “confirmation” does not require documentation of positive serology or culture for HIV; the provider’s diagnostic statement that the patient is HIV positive, or has an HIV-related illness is sufficient.
    2. Selection and sequencing of HIV codes
      - a. Patient admitted for HIV-related condition  
If a patient is admitted for an HIV-related condition, the principal diagnosis should be B20, Human immunodeficiency virus [HIV] disease followed by additional diagnosis codes for all reported HIV-related conditions.
      - b. Patient with HIV disease admitted for unrelated condition  
If a patient with HIV disease is admitted for an unrelated condition (such as a traumatic injury), the code for the unrelated condition (eg, the nature of injury code) should be the principal diagnosis. Other diagnoses would be B20 followed by additional diagnosis codes for all reported HIV-related conditions.
      - c. Asymptomatic human immunodeficiency virus  
Z21, Asymptomatic human immunodeficiency virus [HIV] infection status, is to be applied when the patient without any documentation of symptoms is listed as being “HIV positive,” “known HIV,” “HIV test positive,” or similar terminology.



- d. Patients with inconclusive HIV serology  
Patients with inconclusive HIV serology, but no definitive diagnosis or manifestations of the illness, may be assigned code R75, Inconclusive laboratory evidence of human immunodeficiency virus [HIV].
- e. Previously diagnosed HIV related illness  
Patients with any known prior diagnosis of an HIV-related illness should be coded to B20. Once a patient has developed an HIV-related illness, the patient should always be assigned code B20 on every subsequent admission/encounter.
- f. HIV Infection in Pregnancy, Childbirth and the Puerperium  
During pregnancy, childbirth, or the puerperium, a patient admitted (or presenting for a health care encounter) because of an HIV-related illness should receive a principal diagnosis code of O98.7. Codes from Chapter 15 always take sequencing priority.  
Patients with asymptomatic HIV infection status admitted (or presenting for a health care encounter) during pregnancy, childbirth, or the puerperium should receive codes of O98.7- and Z21.
- g. Encounters for testing for HIV  
If a patient is being seen to determine his/her HIV status, use code Z11.4, Encounter for screening for human immunodeficiency virus [HIV] counseling, may be used if counseling is provided during the encounter for the test.  
When a patient returns to be informed of his/her HIV test results and the test result is negative, use code Z71.7, Human immunodeficiency virus [HIV] counseling.  
If the results are positive, see previous guidelines and assign codes as appropriate.  
(2014 ICD-10-CM Official Coding Guidelines I.C.1.a, 17)

## Diabetes

- Review the new categories of diabetes codes. The new codes are combination codes that include the type of diabetes, the body system affected, and the complications affecting the body system. Some diabetes codes require the use of an additional code, such as the stage of chronic kidney disease. In some instances, the underlying condition is listed first and the diabetes code is listed second.
- Understand the difference between type I and type II diabetes and the pathophysiology of both types.

## Respiratory

- Code for the specific type of pneumonia as documented in the medical record by the provider. Note that lobar pneumonia has a unique category.
- Review the new asthma classifications of mild intermittent, mild persistent, moderate persistent, and severe persistent.
- When a respiratory condition is described as occurring in more than one place, it should be coded to the lower anatomic location.
- It is important to identify various exposures to tobacco as an additional code.
- Some codes in the respiratory chapter have been expanded and require additional codes to identify the infectious agent or virus as well as to code first conditions such as any lung abscess or the underlying disease.

## Gastrointestinal

- Understand when the term hemorrhage is used (ulcers) and when the term bleeding is used (gastritis, duodenitis, diverticulosis, diverticulitis).
- The identification of obstruction in ulcers is no longer part of the code requirements.
- Complications of artificial openings, such as colostomy, enterostomy, and gastrostomy infections and malfunctions are included in the digestive system chapter.



## Delivery and Pregnancy

- Rather than a code structure that requires a fifth digit for episode of care, the trimester in which a condition occurred is now represented in the fifth or sixth character.
- Review the time frames for trimesters; 1<sup>st</sup> trimester, less than 14 weeks, 0 days; 2<sup>nd</sup> trimester, 14 weeks, 0 days to less than 28 weeks, 0 days; 3<sup>rd</sup> trimester, 28 weeks, 0 days until delivery.
- Recognize that, at a minimum, delivery charts must have the following types of codes: delivery diagnosis code, outcome of delivery, weeks of gestation, and procedure code.
- The definition of a normal delivery is the same in ICD-10-CM. Code O80 replaces the 650 code in ICD-9-CM.
- Chapter 15 instructional notes require use of additional code from category Z3A to identify the weeks of gestation.

## Ectopic Pregnancy and Miscarriages

- Codes for ectopic pregnancies and miscarriages are found in Chapter 15. However, codes for elective abortion are found in Chapter 21. Complications for all the aforementioned are in Chapter 15. Understand the definition of incomplete and complete abortion.
- Complications of ectopic pregnancy and abortions require additional codes.

## Anemia

- Some instructional notes require an additional code to identify the cause. Similarly, there are “code first” notes to denote the poisoning and underdosing of medications.
- When there is an admission for treatment of anemia associated with a malignancy, the code for the malignancy is sequenced first with the anemia code as a secondary code.

## Cardiovascular Conditions

- Hypertension code structure no longer contains classifications of benign, malignant, and unspecified.
- If the myocardial infarction is documented as nontransmural or subendocardial but the site is provided, it is still coded as a subendocardial MI.
- When there is a subsequent MI following an initial MI within the 4 week timeframe, a code from category I22 is to be used with a code from category I21. The sequencing depends on the circumstances of admission. If the subsequent MI occurs in the same admission as the initial one, the code from category I21 would be sequenced first. If the MI occurred after discharge within the 4 week timeframe, the code from category I22 would be sequenced first with a secondary code from category I21.
- Review and understand combination codes such as hypertensive heart and kidney disease and arteriosclerotic heart disease with angina pectoris.
- Review the coding of cerebral infarctions and sequelae such as aphasia and hemiplegia.

## Neoplasms

- Review the definitions of the categories in the Neoplasm Table.
  - The primary site is where the cancer arises.
  - A secondary neoplasm is present whenever the neoplasm leaves the organ of origin (where it began). This can occur when the neoplasm travels through the blood and/or the lymphatic system or via direct growth (direct extension) into another adjacent tissue.
- Remember that looking up the morphology type can lead you to the primary site (for example, renal cell carcinoma arises in the kidney).
- Review the suggested steps in *ICD-10-CM Official Guidelines for Coding and Reporting* which are synopsized as follows:
  - Look up the morphology and code the primary site if given.
  - If no primary site code is indicated by the morphology type, the neoplasm table must be used.
  - If the term “metastatic” is used ambiguously, assume the following are secondary sites: bone, brain, diaphragm, heart, liver, lymph nodes, mediastinum, meninges, peritoneum, pleura, retroperitoneum, spinal cord, and sites from the C76 category. (26–32).



## Injuries and Burns

- Review the coding guidelines and instructional notes for Chapter 19. For example, a note at the beginning of the chapter states to “use secondary code(s) from Chapter 20 to indicate cause of injury.” However, codes within the T section that include the external cause do not require an additional external cause code.
- Review the codes which require seventh characters which describe the encounter; A, initial encounter; D, subsequent encounter; S, sequela. These seventh characters are expanded for fractures.
- Review the guidelines related to burns that are located in the same body area, use only the degree of greatest severity with additional codes for burns of other anatomic sites. There are seventh-character values for T20-T28: A, initial encounter; D, subsequent encounter; S, sequela. The extent of the burns are also classified in terms of the extent of the body system involved. External cause codes are also applied.

## Drugs

- An additional column has been added to the Table of Drugs and Chemicals. This column relates to underdosing. ICD-10-CM codes related to this table are combination codes which specify both the responsible substance and whether it is a poisoning, an adverse effect, or an underdosing.
- Review the definition of adverse effect and coding guidelines. The following terms indicate an adverse effect of a drug:
  - Allergic reaction
  - Cumulative effect
  - Hypersensitivity
  - Idiosyncratic reaction
  - Paradoxical reaction
  - Synergistic
- Review the definition of poisoning. The following are classified as poisonings when:
  - The drug is administered, taken, or prescribed incorrectly, for example, if an overdose of medication occurs
  - Alcohol is used in conjunction with a drug
  - Street drugs are taken resulting in an overdose or taken in addition to prescribed or over-the-counter (OTC) drugs
  - OTC drugs are taken with prescriptions
  - Two OTC drugs are used together

## Complications

- Review section T80 through T88 of ICD-10-CM and the Official Coding Guidelines.
- Review the Alphabetic Index and Tabular List and identify what is contained within each category.
- The best way to review this area is to go through the Tabular List.
- There are major groupings of complications, and many require seventh-character values: A, initial encounter; D, for subsequent encounter; S, sequela.
- ICD-10-CM classifies many complications that occur in specific body sites. These are classified in the respective body system chapter of the ICD-10-CM code book. For example, chronic pulmonary insufficiency following surgery (J95.3) is found in Chapter 10, Diseases of Respiratory System (J00–J99). Complications of abortion, pregnancy, labor, or delivery are classified to chapter 15.

## Perinatal Conditions

- Use the Z code (Z38.--) as principal when the admission is for the birth of the infant. Do not use a code from category Z38 if the admission is not for birth (for example, the patient is transferred).
- Code other perinatal conditions as appropriate such as birth trauma, prematurity, or jaundice when documented in the record.



## Present on Admission (POA) Modifiers

- Review the Official Coding Guidelines-2014 ICD-10-CM reporting requirements.
- POA is defined as present at the time the order for inpatient admission occurs. Conditions that develop during an outpatient encounter, including emergency department, observation, or outpatient surgery, are considered POA.
- Reporting definitions are as follows: Y, present at the time of inpatient admission; N, not present at the time of admission; U, documentation is insufficient to determine if condition is present on admission; W, provider is unable to clinically determine whether condition was present on admission or not.

## ICD-10-PCS Review

Please review the ICD-10-PCS conventions A1–A11 which can be found at <http://www.cms.gov/Medicare/Coding/ICD10/Downloads/pcs-2014-guidelines.pdf>. Please also review pages 4–15 of the guidelines which provide specific examples for each guideline covered in this review section.

## Conventions

### A1

ICD-10-PCS codes are composed of seven characters. Each character is an axis of classification that specifies information about the procedure performed. Within a defined code range, a character specifies the same type of information in that axis of classification.

### A2

One of 34 possible values can be assigned to each axis of classification in the seven-character code: they are the numbers 0 through 9 and the alphabet (except I and O because they are easily confused with the numbers 1 and 0). The number of unique values used in an axis of classification differs as needed.

### A3

The valid values of an axis of classification can be added to as needed.

### A4

As with words in their context, the meaning of any single value is a combination of its axis of classification and any preceding values on which it may be dependent.

### A5

As the system is expanded to become increasingly detailed, over time more values will depend on preceding values for their meaning.

### A6

The purpose of the alphabetic index is to locate the appropriate table that contains all information necessary to construct a procedure code. The PCS Tables should always be consulted to find the most appropriate valid code.

### A7

It is not required to consult the index first before proceeding to the tables to complete the code. A valid code may be chosen directly from the tables.

### A8

All seven characters must be specified to be a valid code. If the documentation is incomplete for coding purposes, the physician should be queried for the necessary information.

### A9

Within a PCS table, valid codes include all combinations of choices in characters 4 through 7 contained in the same row of the table.



## **Introduction**

### **A10**

"And," when used in a code description, means "and/or."

### **A11**

Many of the terms used to construct PCS codes are defined within the system. It is the coder's responsibility to determine what the documentation in the medical record equates to in the PCS definitions. The physician is not expected to use the terms used in PCS code descriptions, nor is the coder required to query the physician when the correlation between the documentation and the defined PCS terms is clear.

## **Medical and Surgical Section Guidelines**

### **B2. Body System**

#### *General guidelines*

#### **B2.1a**

The procedure codes in the general anatomical regions body systems should only be used when the procedure is performed on an anatomical region rather than a specific body part (eg, root operations Control and Detachment, Drainage of a body cavity) or on the rare occasion when no information is available to support assignment of a code to a specific body part.

#### **B2.1b**

Where the general body part values "upper" and "lower" are provided as an option in the Upper Arteries, Lower Arteries, Upper Veins, Lower Veins, Muscles and Tendons body systems, "upper" or "lower" specifies body parts located above or below the diaphragm respectively.

### **B3. Root Operation**

#### *General guidelines*

#### **B3.1a**

In order to determine the appropriate root operation, the full definition of the root operation as contained in the PCS Tables must be applied.

#### **B3.1b**

Components of a procedure specified in the root operation definition and explanation are not coded separately. Procedural steps necessary to reach the operative site and close operative site, including anastomosis of a tubular body part, are also not coded separately.

#### *Multiple procedures*

#### **B3.2**

During the same operative episode, multiple procedures are coded if:

- a. The same root operation is performed on different body parts as defined by distinct values of the body part character.
- b. The same root operation is repeated at different body sites that are included in the same body part value.
- c. Multiple root operation with distinct objectives are performed on the same body part.
- d. The intended root operation is attempted using one approach, but is converted to a different approach.

#### *Discontinued procedures*

#### **B3.3**

If the intended procedure is discontinued, code the procedure to the root operation performed. If a procedure is discontinued before any other root operation is performed, code the root operation Inspection of the body part or anatomical region inspected.



*Biopsy procedures***B3.4a**

Biopsy procedures are coded using the root operations Excision, Extraction, or Drainage and the qualifier Diagnostic. The qualifier Diagnostic is used only for biopsies.

*Biopsy followed by more definitive treatment***B3.4b**

If a diagnostic Excision, Extraction, or Drainage procedure (biopsy) is followed by a more definitive procedure, such as Destruction, Excision or Resection at the same procedure site, both the biopsy and the more definitive treatment are coded.

*Overlapping body layers***B3.5**

If the root operations Excision, Repair or Inspection are performed on overlapping layers of the musculoskeletal system, the body part specifying the deepest layer is coded.

*Bypass procedures***B3.6a**

Bypass procedures are coded by identifying the body part bypassed "from" and the body part bypassed "to." The fourth character body part specifies the body part bypassed from, and the qualifier specifies the body part bypassed to.

**B3.6b**

Coronary arteries are classified by number of distinct sites treated, rather than number of coronary arteries or anatomic name of a coronary artery (eg, left anterior descending). Coronary artery bypass procedures are coded differently than other bypass procedures as described in the previous guideline. Rather than identifying the body part bypassed from, the body part identifies the number of coronary artery sites bypassed to, and the qualifier specifies the vessel bypassed from.

**B3.6c**

If multiple coronary artery sites are bypassed, a separate procedure is coded for each coronary artery site that uses a different device and/or qualifier.

*Control vs. more definitive root operations***B3.7**

The root operation Control is defined as, "Stopping, or attempting to stop, postprocedural bleeding." If an attempt to stop postprocedural bleeding is initially unsuccessful, and to stop the bleeding requires performing any of the definitive root operations Bypass, Detachment, Excision, Extraction, Reposition, Replacement, or Resection, then that root operation is coded instead of Control.

*Excision vs. Resection***B3.8**

PCS contains specific body parts for anatomical subdivisions of a body part, such as lobes of the lungs or liver and regions of the intestine. Resection of the specific body part is coded whenever all of the body part is cut out or off, rather than coding Excision of a less specific body part.

*Excision for graft***B3.9**

If an autograft is obtained from a different body part in order to complete the objective of the procedure, a separate procedure is coded.



## ***Introduction***

### ***Fusion procedures of the spine***

#### **B3.10a**

The body part coded for a spinal vertebral joint(s) rendered immobile by a spinal fusion procedure is classified by the level of the spine (eg thoracic). There are distinct body part values for a single vertebral joint and for multiple vertebral joints at each spinal level.

#### **B2.10b**

If multiple vertebral joints are fused, a separate procedure is coded for each vertebral joint that uses a different device and/or qualifier.

#### **B3.10c**

Combinations of devices and materials are often used on a vertebral joint to render the joint immobile. When combinations of devices are used on the same vertebral joint, the device value coded for the procedure is as follows:

- If an interbody fusion device is used to render the joint immobile (alone or containing other material like bone graft), the procedure is coded with the device value Interbody Fusion Device.
- If bone graft is the *only* device used to render the joint immobile, the procedure is coded with the device value Nonautologous Tissue Substitute or Autologous Tissue Substitute.
- If a mixture of autologous and nonautologous bone graft (with or without biological or synthetic extenders or binders) is used to render the joint immobile, code the procedure with the device value Autologous Tissue Substitute.

### ***Inspection procedures***

#### **B3.11a**

Inspection of body part(s) performed in order to achieve the objective of a procedure is not coded separately.

#### **B3.11b**

If multiple tubular body parts are inspected, the most distal body part inspected is coded. If multiple non-tubular body parts in a region are inspected, the body part that specifies the entire area inspected is coded.

#### **B3.11c**

When both an Inspection procedure and another procedure are performed on the same body part during the same episode, if the Inspection procedure is performed using a different approach than the other procedure, the inspection procedure is coded separately.

### ***Occlusion vs. Restriction for vessel embolization procedures***

#### **B3.12**

If the objective of an embolization procedure is to completely close a vessel, the root operation Occlusion is coded. If the objective of an embolization procedure is to narrow the lumen of a vessel, the root operation Restriction is coded.

### ***Release procedures***

#### **B3.13**

In the root operation Release, the body part value coded is the body part being freed and not the tissue being manipulated or cut to free the body part.

### ***Release vs. Division***

#### **B3.14**

If the sole objective of the procedure is freeing a body part without cutting the body part, the root operation is Release. If the sole objective of the procedure is separating or transecting a body part, the root operation is Division.



*Reposition for fracture treatment***B3.15**

Reduction of a displaced fracture is coded to the root operation **Reposition** and the application of a cast or splint in conjunction with the **Reposition** procedure is not coded separately. Treatment of a nondisplaced fracture is coded to the procedure performed.

Casting of a nondisplaced fracture is coded to the root operation **Immobilization** in the **Placement** section.

*Transplantation vs. Administration***B3.16**

Putting in a mature and functioning living body part taken from another individual or animal is coded to the root operation **Transplantation**. Putting in autologous or nonautologous cells is coded to the **Administration** section.

**B4 Body Part***General guidelines***B4.1a**

If a procedure is performed on a portion of a body part that does not have a separate body part value, code the body part value corresponding to the whole body part.

**B4.1b**

If the prefix "peri" is combined with a body part to identify the site of the procedure, the procedure is coded to the body part named.

*Branches of body parts***B4.2**

Where a specific branch of a body part does not have its own body part value in PCS, the body part is coded to the closest proximal branch that has a specific body part value.

*Bilateral body part values***B4.3**

**Bilateral body part values** are available for limited number of body parts. If the identical procedure is performed on **contralateral body parts**, and a **bilateral body part value** exists for that body part, a **single procedure** is coded using the **bilateral body part value**. If no **bilateral body part value** exists, each procedure is coded separately using the appropriate **body part value**.

*Coronary arteries***B4.4**

The coronary arteries are classified as a single body part that is further specified by number of sites treated and not by **name** or number of arteries. Separate body part values are used to specify the number of sites treated when the same procedure is performed on multiple sites in the coronary arteries.

*Tendons, ligaments, bursae and fascia near a joint***B4.5**

Procedures performed on tendons, ligaments, bursae and fascia supporting a joint are coded to the body part in the **respective body system** that is the focus of the procedure. Procedures performed on joint structures themselves are coded to the body part in the joint body systems.



## **Introduction**

### *Skin, subcutaneous tissue and fascia overlying a joint*

#### **B4.6**

If a procedure is performed on the skin, subcutaneous tissue or fascia overlying a joint, the procedure is coded to the following body part:

- Shoulder is coded to Upper Arm
- Elbow is coded to Lower Arm
- Wrist is coded to Lower Arm
- Hip is coded to Upper Leg
- Knee is coded to Lower Leg
- Ankle is coded to Foot

### *Fingers and toes*

#### **B4.7**

If a body system does not contain a separate body part value for fingers, procedures performed on the fingers are coded to the body part value for the hand. If a body system does not contain a separate body part value for toes, procedures performed on the toes are coded to the body part value for the foot.

### *Upper and lower intestinal tract*

#### **B4.8**

In the Gastrointestinal body system, the general body part values Upper Intestinal Tract and Lower Intestinal tract are provided as an option for the root operations Change, Inspection, Removal and Revision. Upper Intestinal Tract includes the portion of the gastrointestinal tract from the esophagus down to and including the duodenum, and Lower Intestinal Tract includes the portion of the gastrointestinal tract from the jejunum down to and including the rectum and anus.

## **B5. Approach**

### *Open approach with percutaneous endoscopic assistance*

#### **B5.2**

Procedures performed using the open approach with percutaneous endoscopic assistance are coded to the approach Open.

### *External approach*

#### **B5.3a**

Procedures performed within an orifice on structures that are visible without the aid of any instrumentation are coded to the approach External.

#### **B5.3b**

Procedures performed indirectly by the application of external force through the intervening body layers are coded to the approach External.

### *Percutaneous procedure via device*

#### **B5.4**

Procedures performed percutaneously via a device placed for the procedure are coded to the approach percutaneous.

## **B6. Device**

### *General guidelines*

#### **B6.1a**

A device is coded only if a device remains after the procedure is completed. If no device remains, the device value No Device is coded.



**B6.1b**

Materials such as sutures, ligatures, radiological markers, and temporary post-operative wound drains are considered integral to the performance of a procedure and are not coded as devices.

**B6.1c**

Procedures performed on a device only and not on a body part are specified in the root operations Change, Irrigation, Removal, and Revision, and are coded to the procedure performed.

*Drainage device***B6.2**

A separate procedure to put in a drainage device is coded to the root operation Drainage with the device value Drainage Device.

**Obstetric Section Guidelines (section 1)****C. Obstetrics Section***Products of conception***C1**

Procedures performed on the products of conception are coded to the obstetrics section. Procedures performed on the pregnant female other than the products of conception are coded to the appropriate root operation in the Medical and Surgical section.

*Procedures following delivery or abortion***C2**

Procedures performed following a delivery or abortion for curettage of the endometrium or evacuation of retained products of conception are all coded in the Obstetrics section, to the root operation Extraction and the body part Products of Conception, Retained. Diagnostic or therapeutic dilation and curettage performed during times other than the postpartum or post-abortion period are all coded in the Medical and Surgical section, to the root operation Extraction and the body part Endometrium.

**D. Selection of Principal Procedure**

The following instructions should be applied in the selection of principal procedure and clarification on the importance of the relation to the principal diagnosis when more than one procedure is performed:

1. Procedure performed for definitive treatment of both principal diagnosis and secondary diagnosis
  - a. Sequence procedure performed for definitive treatment most related to principal diagnosis as principal procedure
2. Procedure performed for definitive treatment and diagnostic procedures performed for both principal diagnosis and secondary diagnosis
  - a. Sequence procedure performed for definitive treatment most related to principal diagnosis as principal procedure
3. A diagnostic procedure was performed for the principal diagnosis and a procedure is performed for definitive treatment of a secondary diagnosis
  - a. Sequence diagnostic procedure as principal procedure, since the procedure most related to the principal diagnosis takes precedence
4. No procedures performed that are related to principal diagnosis; procedures performed for definitive treatment and diagnostic procedures were performed for secondary diagnosis
  - a. Sequence procedure performed for definitive treatment of secondary diagnosis as principal procedure, since there are no procedures (definitive or nondefinitive treatment) related to principal diagnosis



## Procedures

- Understand how procedures, sometimes performed at the patient's bedside, affect the MS-DRG assignment. Some examples are transbronchial biopsies, ventilator usage, excisional debridement, and tracheostomies.
- Be careful to assign debridement codes appropriately. Do not code an excisional debridement unless there is documentation in the record reflecting that an excisional debridement was performed. Review the *Coding Clinic* guidance associated with excisional debridement.
- Review coding cardiac procedures such as cardiac catheterizations and bypass surgery. If you do not have exposure to this type of chart, practice coding these issues using a coding exercise book.

Source: CMS 2015.

## MS-DRGs and Case Mix

Obtain draft ICD-10-CM/PCS MS-DRGv32 Definitions Manual for fiscal year 2015. Highlight the most common MS-DRGs that will occur in the average hospital and look at how they are ordered. This type of study will help you become familiar with the most common MS-DRGs and see the hierarchy of MS-DRG decision trees. Generally, the MS-DRG grouper considers the following information: whether the patient had a procedure, the age of the patient, the comorbid conditions (CCs), the discharge disposition, and whether there was a major comorbid condition (MCC).

It is important to review the definitions of case mix and case-mix index:

- **Case mix:**
  1. From a clinician perspective it is a description of a patient population based on any number of specific characteristics, including severity of illness, risk for mortality, prognosis, treatment difficulty, or need for intervention.
  2. From a DRG perspective, a case mix index is a direct measure of the resource consumption and, therefore, the cost of providing care.  
(Casto and Forrestal, 2013, 127.)
- **Case-mix index (CMI):** "The average sum of the relative weight of all patients in a given time period." Operationally the patients could be treated at a given facility or by a given physician. Note that the case mix index is calculated by dividing the sum of the weights of diagnosis-related groups for patients discharged during a given period divided by the total number of patients discharged.

If you do not code inpatient records on a routine basis, it is important to obtain a list of MS-DRGs from the Centers for Medicare and Medicaid Services ([http://www.cms.gov/ICD10Manual/version32-fullcode-cms/fullcode\\_cms/P0370.html](http://www.cms.gov/ICD10Manual/version32-fullcode-cms/fullcode_cms/P0370.html)). If possible, put some of the exercises or cases in this book into the MS-DRG grouper to familiarize yourself with common MS-DRGs. Switch the principal diagnosis and note how the MS-DRG changes. Also note which MS-DRGs are affected by MCCs and/or CCs.

Review the MS-DRG weights of the most common MS-DRGs that would occur in an average hospital in the United States. The following is a list, which is by no means all-inclusive, of some common clinical scenarios that might form the basis of further study.

Pneumonia  
Congestive Heart Failure  
Cholecystitis and Cholecystectomy  
Malignant Neoplasms with Associated Treatments  
Lung  
Breast  
Prostate  
Colon  
Fracture of Femur with Associated Treatments  
Total Hip Replacement  
Open Reduction with Internal Fixation  
Septicemia  
Gastrointestinal Hemorrhage  
COPD with Exacerbation



Respiratory Failure  
 Deliveries  
 Newborns  
 Anemia

Review the common MS-DRGs that cannot be optimized unless a procedure is found or the principal diagnosis is changed. Try to find some examples.

Use a grouper that you have access to in your work or academic institution.

## Case-mix Exercises

The following exercises are meant to help you learn more about case-mix analysis and increase your knowledge of MS-DRGs. In actual coding practice, it would only be appropriate to switch the principal diagnoses if the clinical information conformed to UHDDS guidelines that supported a change in principal diagnosis. Try the following exercises. The discharge disposition is discharged to home.

1. A 22-month-old child has pyelonephritis (N12) and dehydration (E86.0) and both are equally treated. Which MS-DRG will have the highest weight?
2. If a 65-year-old patient has pneumonia (J18.9) and congestive heart failure (I50.9), which MS-DRG will have a higher weight?
3. If a 70-year-old patient has pneumonia due to *Escherichia coli* (J15.5) and an acute exacerbation of COPD (J44.1), which MS-DRG will have a higher weight?
4. Case mix (CM) and case-mix index (CMI) calculations: The CM is all of the relative weights added together. The CMI is the average weight of all the cases in a given dataset or period of time. What is the case mix and CMI for these cases using the highest paying MS-DRGs?

Answers are in the Answer Key in the back of this book.

## CPT Review

Review the beginning of each section in the CPT code book for instructions about definitions and other information pertinent to assigning the correct code. The following are highlights related to areas that past exam takers have found important to review:

### Integumentary (Skin)

- Review the section on lacerations (repair) in the CPT book regarding when to add the lengths together and when to use an additional code for closure of the wound.
- Remember that grafts are measured in square centimeters, which is different than lacerations.
- Review the use of codes involved in excision, destruction, or other methods of removing lesions in the Malignant, Benign, Skin Tags, Other Lesions section.
- Note that directional modifiers (such as LT, RT, 50) cannot be used in conjunction with skin repair codes.

### Endoscopies

- In general, the Alphabetical Index will provide a range of codes for a given procedure. Some of these are open procedures. Make sure you look up each code before assigning it.
- There is a difference between "brushings and washings" and a biopsy in CPT.
  - Review the definitions of upper and lower gastrointestinal (GI) endoscopies in CPT
  - Upper gastrointestinal endoscopy
  - Proctosigmoidoscopy
  - Sigmoidoscopy
  - Colonoscopy
  - Review the Laparoscopy section of CPT
  - Review the definitions of the sinus procedures
  - Review the definitions under bronchoscopies. Remember that a bilateral bronchoscopy is coded twice or with a -50 modifier.



## Musculoskeletal

- Review the terminology differences between ICD and CPT related to the treatment of fractures. For example, "manipulation" is the same in CPT as "reposition" in ICD-10-PCS.
- Understand the medical terminology, approaches, notes, and inclusions for knee repairs.

## Cardiovascular Services

- Coronary Therapeutic Services and Procedures
- Major coronary arteries and coronary artery branches
- Thrombectomy
- Cardiography
- Cardiovascular Monitoring Services
- Implantable and Wearable Cardiac Devices
- Cardiac Catheterization

## Outpatient Prospective Payment System

The outpatient prospective payment system (OPPS), for ambulatory care, began to be used for Medicare in August 2000. This system uses the ambulatory payment classifications (APCs) for reimbursement for hospital-based outpatient services such as outpatient surgery, emergency department visits, outpatient clinic visits, and outpatient ancillary tests. Some highlights of this system are listed here:

- APCs are similar to MS-DRGs in that they are both prospective payment methodologies and both have relative weights.
- APCs are different from MS-DRGs because outpatients can have multiple APCs for a given encounter, whereas an inpatient can have only one MS-DRG.
- APCs are generated for many services, such as x-rays, medical tests, clinic or emergency visits, surgical procedures, devices, drugs and biologicals, and partial hospitalizations.
- The billing number is the connecting identifier for a given patient's encounter that results in multiple APCs.

Status indicators denote what type of service was provided and assist in determining the payment. Status indicators include: X, ancillary; V, clinic or emergency department visit; T, significant procedure that is discounted when other T procedures are provided (the first procedure is paid at a rate of 100 percent whereas the second and those thereafter are paid at 50 percent); S, significant procedure that is paid at 100 percent and is not discounted; P, partial hospitalization; H, Pass-through device categories; G/J, drugs/biologicals; K, Non-pass-through drugs and non-implantable biological, including therapeutic radiopharmaceuticals. Please visit the CMS web page (noted in the References in this book) for more information and a complete list of status indicators.

- CPT (numeric) and HCPCS (alphanumeric) modifiers approved for hospital outpatient are listed on the CPT codebook inside cover; -25, -27, -50, -52, -58, -59, -73, -74, -76, -77, -78, -79, -91, -LT, -RT, -A1, -BL, -CA, -CR, -E1, -E2, -E3, -E4, -FA, -FB, -FC, -F1, -F2, -F3, -F4, -F5, -F6, -F7, -F8, -F9, -GA, -GG, -GH, -LC, -LD, -LM, -Q0, -Q1, -QM, -QN, -RC, -RI, -TA, -T1, -T2, -T3, -T4, -T5, -T6, -T7, -T8, -T9.
- The following is a *hypothetical* example of one patient's APCs for a given encounter in the emergency department.

Billing Number	Status Indicator	CPT/HCPC	APC	Amount
789321	V	99284-25	0615	\$223.17
789321	T	25500	0129	\$111.73
789321	X	72050	0261	\$75.23
789321	S	72128	0332	\$195.07
789321	S	70450	0332	\$195.07
				Reimbursement Total = \$800.27



While reviewing *Coding Clinic* and *CPT Assistant*, keep three goals in mind:

- Review as many years of both references to prepare for the multiple choice and coding sections of the examination. Review both references beginning with the most recent issue and reading backward (for instance, read 4th Quarter 2013, then 3rd Quarter 2013). This will allow you to know when changes occurred and what the most recent requirements are.
- Review as many topics that pertain to common inpatient and outpatient diagnoses and procedures for services that the average hospital would provide as you can. Be sure to read the fiscal year (FY) 2014 Official Coding Guidelines.
- Bolster knowledge in your areas of weakness that you have identified. The references used to develop the 2014 CCS exam stop at the end of 2013.

### Ambulatory Payment Classifications (APCs)

It is important to understand the methodology of APCs. Some important issues to review are discounting, impact of CPT and HCPCS codes, medical necessity, the Correct Coding Initiative (CCI), status indicators, packaging, and the three-year transitional corridor. Refer to the Coding Challenges later in this section. AHIMA also has excellent resources regarding this topic. Also visit the CMS website for Medicare Program Memorandum.

### Health Insurance Portability and Accountability Act (HIPAA)

Review recent AHIMA Practice Briefs and articles on this topic. Questions about HIPAA could be present on the exam. An easy way to study this area is to access information from the Body of Knowledge.

### Common Diseases and Disorders with Associated Drugs

This is *not* a comprehensive list but can be helpful for review.

**AIDS**—Immunodeficiency syndrome caused by the human immunodeficiency virus (HIV). This disorder is associated with opportunistic infections, malignancies, and neurologic disease.

**Medications:** NRTIs—Nucleoside Reverse Transcriptase Inhibitors (Retrovir, AZT, Videx, ddI, Hivid, ddC, Zeril, d4T, Epivir, 3TC, Emtricitabine, Tenofovir, Zidovudine); NRTIs—Nonnucleoside Reverse Transcriptase Inhibitors (Viramunde, Sustiva, Delavirdine, Rilpivirine, Etravirine, Nevirapine); Protease Inhibitors (Invirase, Saquinavir, Crivon, Indinavir, Kaletra, Lipinavir, Ritonavir, Atazanavir, Darunavir, Prezista, Tibotec, Fosamprenavir, Lexiva)

**Allergies**—Hypersensitivity to a substance that does not normally cause a reaction.

**Medications:** antihistamines such as Claritin, Phenergan, Allegra, Zyrtec. The most common antihistamine for allergic reaction is diphenhydramine (Benadryl)

**Anemia**—Reduction in the number of circulating red blood cells or a reduction in the amount of hemoglobin in each red blood cell.

**Medications:** iron supplements, ferrous sulfate (Feosol), ferrous fumarate (Femiron), ferrous gluconate (Fergon); B<sub>12</sub> (Cyanocobalamin); hematopoietic agents (Procrit, Epogen, Neupogen)

**Angina pectoris**—Severe pain associated with constriction in blood vessels to the heart with pain radiating to the left arm, abdomen, back, or jaw.

**Medications:** verapamil (Verelan, Calan SR); diltiazem (Cardizem CD, Dilacor); nifedipine (Adalat, Procardia); nitrates (Isordil, Imdur, ISMO); NTG—nitroglycerin (Nitroquick, Nitro-Dur); atenolol (Tenormin)

**Anxiety**—Mental disorder that manifests as fear, worry, or dread that is not related to a specific event or set of objects.

**Medications:** lorazepam (Ativan); alprazolam (Xanax); diazepam (Valium); paroxetine (Paxil); buspirone (Buspar); citalopram HBr (Celexa), fluoxetine Hcl (Prozac), sertraline (Zoloft), escitalopram (Lexapro)

**Arrhythmia**—Irregularities in the force or rhythm of the heart such as atrial fibrillation, tachycardia, bradycardia, or cardiac arrest.

**Medications:** verapamil (Calan SR, Verelan); digoxin (Lanoxin); quinidine (Quinaglute, Quinidex); amiodarone (Cordarone)

**Arthritis**—Inflammation of the joints. There are three major types of arthritis: osteoarthritis, rheumatoid arthritis, and gout.

**Medications:** ibuprofen (Advil, Motrin); hydrocortisone; Lodine; naproxen (Naprosyn); Oruvail; prednisone (Deltasone); Relafen; Voltaren; Medrol; Daypro; Celebrex



## Introduction

**Asthma**—Spasm of the bronchial tubes or swelling of the mucous membrane.

*Medications:* albuterol (Proventil, Ventolin); theophylline; Theo-Dur; Serevent; Xopenex; Azmacort; Atrovent

**Bipolar disorder**—Mental disorder in which both mania and depression occur.

*Medications:* lithium; Lithobid; Eskalith; Zyprexa

**Chronic obstructive pulmonary disease (COPD)**—Group of disorders that decrease the ability of the lungs to provide ventilation to the body. Some forms of COPD include chronic obstructive asthma, chronic obstructive bronchitis, emphysema, bronchiectasis, and combinations of the aforementioned disorders.

*Medications:* Prednisone, albuterol (Proventil, Ventolin); Serevent; Alupent; Atrovent

**Congestive heart failure (CHF)**—Inability of the heart to pump the blood through the body adequately, resulting in edema in the extremities.

*Medications:* Amiloride (Midamor), Bumetanide (Bumex), Chlorothiazide (Diuril), Chlorthalidone (Hygroton), Furosemide (Lasix), Hydro-chlorothiazide (Esidrix, Hydrodiuril), Indapamide (Lozol), Spironolactone (Aldactone), Benazepril (Lotensin), Captopril (Capoten), Enalapril (Vasotec), Fosinopril (Monopril), Lisinopril (Prinivil, Zestril), Moexipril (Univasc), Perindopril (Aceon), Quinapril (Accupril), Ramipril (Altace), Trandolapril (Mavik), Acebutolol (Sectral), Atenolol (Tenormin), Betaxolol (Kerlone), Bisoprolol/hydrochlorothiazide (Ziac), Bisoprolol (Zebeta), Carteolol (Cartrol), Metoprolol (Lopressor, Toprol XL), Nadolol (Corgard), Propranolol (Inderal), Sotalol (Betapace), Timolol (Blocadren)

**Dehydration**—Loss of body fluid; this may be associated with severe nausea and vomiting, diarrhea, high fever, and urinary tract infections.

*Medications:* intravenous fluids, oral fluids; Pedialyte; Infalyte; Gatorade; Sportade

**Depression**—Mental disorder in which there is loss of interest in usually pleasurable pursuits.

*Medications:* amitriptyline hydrochloride (Elavil); Celexa; nortriptyline hydrochloride (Pamelor); Paxil; Prozac; trazodone hydrochloride (Desyrel); Zoloft

**Diabetes mellitus**—Disorder in which there is inadequate production or utilization of insulin. There are two types: Type I (the body does not produce or does not produce enough endogenous insulin) and type II (the cells of the body do not utilize the endogenous insulin properly).

*Medications:* glyburide (DiaBeta, Glynase PresTab, Micronase); Glucophage; Glucotrol; insulin (Humulin, Humalog, Novolin), Lantus, Metformin, Glucophage XR, Fortamet, Glumetza

**Diverticulitis**—Infection of the diverticula that causes inflammation.

*Medications:* antibiotics: ampicillin; gentamicin; tetracycline; cephalosporins (Mefoxin, Rocephin, Fortaz)

**Diverticulosis**—Formation of diverticula in the large intestine that can bleed or become infected or inflamed.

*Medications:* High-fiber diet

**Fever**—Elevated temperature.

*Medications:* acetaminophen (Tylenol); aspirin; ibuprofen (Motrin, Advil, Nuprin)

**Gastrointestinal ulcers**—Lesion in the mucosal membrane of the gastrointestinal tract that may cause bleeding or perforation. When a perforation occurs, the bacteria in the gastrointestinal tract may spill into the adjacent body cavity, causing peritonitis.

*Medications:* Axid; Nexium; Pepcid; Prilosec; Tagamet; Zantac

**Hyperlipidemia**—Excessive amount of lipids (fat) in the blood.

*Medications:* gemfibrozil (Lopid, Mevacor, Pravachol, Zocor, Lipitor)

**Hypertension**—Blood pressure that is persistently higher than normal. Malignant hypertension is characterized by severe vascular and other internal organ damage.

*Medications:* Altace; atenolol (Tenormin); Accupril; Capoten; Cardura; Coreg; Corgard; DynaCirc; enalapril (Vasotec); Hytrin; Lotensin; metoprolol (Lopressor); Norvasc; Prinivil; Zestril, Benazepril (Lotensin), Fosinopril (Monopril), Lisinopril, Moexipril (Univasc), Perindopril (Aceon), Quinapril (Accupril), Ramipril (Altace), Trandolapril (Mavik), Acebutolol (Sectral), Atenolol (Tenormin), Betaxolol (Kerlone), Bisoprolol/hydrochlorothiazide (Ziac), Bisoprolol (Zebeta), Carteolol (Cartrol), Toprol XL, Nadolol, Propranolol (Inderal), Sotalol (Betapace), Timolol (Blocadren)



**Hypokalemia**—Potassium depletion in the blood.

*Medications:* potassium chloride (K-Dur, K-Lyte, Micro-K, Klor-Con, K-Tab, Kaon, K-Lor)

**Hypotension**—Persistently lower-than-normal blood pressure. There are two common forms of hypotension: orthostatic and that due to other disorders such as anemia, trauma, hemorrhage, and fever.

*Medications:* volume expansion by increasing salt (NaCl); fludrocortisone acetate (Florinef Acetate); ephedrine

**Hypothyroid**—Decreased amount of thyroid secretion.

*Medications:* Levoxyl; Synthroid; thyroid; Levotheroid; Cytomel

**Impotence**—Inability to maintain or achieve erection. This can occur because of an organic cause: following a radical prostatectomy, due to diabetes or alcohol abuse, or due to medications. Psychological reasons can also be a cause of this disorder.

*Medications:* Viagra; Cialis, Levitra, alprostadil (Muse, Edex, Caverject)

**Infections**—Result of an invasion of a pathogenic agent such as a virus or a bacterium. Infectious organisms include: bacteria (such as streptococci, staphylococci, spirochetes), viruses, fungi, and protozoa.

*Medications:* antibiotics; amoxicillin trihydrate (Amoxil); ampicillin; Augmentin; Bactroban; Beepen-VK; Biaxin; Ceclor; Cefdin; Cefzil; cephalixin; Cipro; Claforan; Cotrim; doxycycline; Duricef; erythromycin (E.E.S., E-Mycin 333, Erythrocin, EryTab); Floxin; Fortaz; Lorabid; Macrobid; neomycin and polymixin; Penicillin VK; Pen-Vee K; Peridex; Principen; Rocephin; Suprax; tetracycline; Trimox; Vantin; Veetids; Zithromax; antifungals; Diflucan; Lotrisone; Nizoral; nystatin; antivirals; famvir; Valtrex; metronidazole; Zovirax

**Malignant neoplasms**—Uncontrolled growth of cells and the dispersion of malignant cells through the blood, the lymph system, or by direct extension to tissue adjacent to the tumor.

*Medications:* chemotherapy; 5-Fluorouracil; chlorambucil; cisplatin (Platinol); Cytosan; doxorubicin (Adriamycin); Flutamide, megestrol acetate (Megace), MTX-methotrexate; prednisone; Taxol; Taxotere; vinblastine (Velban); vincristine (Oncovin); hormonal therapy; Arimidex; goserelin (Zoladex); Lupron; Proscar; Tamoxifen; biological response modifiers; Herceptin; Intron; Proleukin, IL-2; Roferon

**Pneumonia or pneumonitis**—Infection or inflammation of the lungs. There are multiple causes such as infectious agents (bacterial or virus), aspiration of secretions or food, inhalation of fumes, or radiation.

*Medications:* See Infections

**Schizophrenia**—Group of disorders characterized by disordered thinking, effect, and behavior.

*Medications:* haloperidol (Haldol); chlorpromazine (Thorazine); thioridazine (Mellaril); fluphenazine (Prolixin); Serenitil; Seroquel; Clozaril; Zyprexa

**Seizure**—Involuntary muscular contractions and relaxations.

*Medications:* Depakote; Dilantin; Klonopin; Neurontin; phenobarbital; Tegretol; diazepam (Valium); Topamax

**Septicemia**—Systemic infection usually manifesting in pathogenic organisms or accumulation of their toxins in the bloodstream.

*Medications:* See Infections

**Thrombophlebitis**—Inflammation of a vein. This condition leaves the patient at risk for embolisms.

*Medications:* warfarin sodium (Coumadin); heparin

## Procedures for Coding Medical Record Cases for the CCS Examination

Instructions and official guidelines for coding medical records are included in the following resources: *ICD-10-CM*, *ICD-10-PCS*, *CPT*, *UHDDS*, *Coding Clinic for ICD-10-CM/PCS* and *CPT Assistant*. However, hospitals and other organizations may develop their own procedures in the absence of approved guidelines. To ensure consistent coding, the following procedures have been developed for use in the CCS examination. The procedures do not supersede or replace official coding advice and guidelines included in the resources identified above.

These procedures are to be used only in completing the CCS examination. They will be provided to test takers as part of the examination packet. Not adhering to these procedures may result in the miscoding of an exercise, which may result in the deduction of points when the item is scored.



## Inpatient Coding

1. Apply UHDDS definitions, ICD-10-CM/PCS instructional notations and conventions, and current approved national ICD-10-CM/PCS coding guidelines to assign correct ICD-10-CM/PCS diagnostic and procedural codes to hospital inpatient medical records.
2. Sequence the ICD-10-CM codes, listing the principal diagnosis first.
3. Code other diagnoses that coexist at the time of admission, that develop subsequently, or that affect the treatment received and/or the length of stay. These represent additional conditions that affect patient care in terms of requiring clinical evaluation, therapeutic treatment, diagnostic procedures, extended length of hospital stay, or increased nursing care and/or monitoring.
  - a. Code diagnoses that require active intervention during hospitalization. For example: Admission for small-bowel ileus and subsequent aspiration pneumonia that is treated with antibiotics and respiratory therapy. Code the ileus and aspiration pneumonia.
  - b. Code diagnoses that require active management of chronic disease during hospitalization, which is defined as a patient who is continued on chronic management at time of hospitalization. For example: Admission for acute exacerbation of COPD. The patient has depression that extends the stay and for which psychiatric consultation is obtained. Code the COPD and depression. For example: Admission for acute exacerbation of COPD. Physician lists "history of depression" on face sheet, and the patient is given Desyrel. Code the COPD and depression.
  - c. Code diagnoses of chronic systemic or generalized conditions that are not under active management when a physician documents them in the record and that may have a bearing on the management of the patient. For example: Admission for breast mass; diagnosis is carcinoma. Patient is blind and requires increased care. Code the breast carcinoma and blindness.
  - d. Code status post previous surgeries or conditions likely to recur that may have a bearing on the management of the patient. For example: Admission for pneumonia; status post cardiac bypass surgery. Code the pneumonia and status post cardiac bypass surgery (Z code).
  - e. Do not code status post previous surgeries or histories of conditions that have no bearing on the management of the patient. For example: Admission for pneumonia; status post hernia repair six months prior to admission. Code only the pneumonia. Previous surgeries involving transplants, internal devices, and prosthetics should be coded.
  - f. Do not code localized conditions that have no bearing on the management of the patient. For example: Admission for hernia repair; the patient has a nevus on his leg that is not treated or evaluated. Code only the hernia and its repair.
  - g. Do not code abnormal findings (laboratory, x-ray, pathologic, and other diagnostic results) unless there is documentary evidence from the physician of their clinical significance. For example: Admission for elective joint replacement for degenerative joint disease. The laboratory report shows a serum sodium of 133; no further documentation addresses this laboratory result. Code only the degenerative joint disease and the replacement surgery. For example: Admission for elective joint replacement for degenerative joint disease. The laboratory report shows a low potassium level, and the physician documents hypokalemia. Intravenous potassium was administered by the physician for hypokalemia. Code the degenerative joint disease, the replacement surgery, and hypokalemia.
  - h. Do not code symptoms and signs that are characteristic of a diagnosis. For example: A patient has dyspnea due to COPD. Code only the COPD.
  - i. Do not code condition(s) in the Social History section that has no bearing on the management of the patient.
4. Do not assign External Causes of Morbidity V01–Y99 codes.
5. Do not assign Morphology codes (M codes).
6. Code all procedures that fall within the code range 001 through 10Y.
7. Do not code procedures that fall within the code range 2W0 (Placement) through HZ9 (Substance Abuse Treatment) sections. But do code procedures in the following ranges:
  - Cholangiograms
  - Retrogrades, urinary systems
  - Arteriography and angiography
  - Radiation therapy
  - Psychiatric therapy
  - Alcohol/drug detoxification and rehabilitation



- Insertion of endotracheal tube
- Other lavage of bronchus and trachea
- Mechanical ventilation
- ESWL
- Chemotherapy

### Ambulatory Care Coding

1. Apply ICD-10-CM instructional notations and conventions and current approved Diagnostic Coding and Reporting Guidelines for Outpatient Services (Section IV of the official ICD-10-CM Guidelines for Coding and Reporting), to select diagnoses, conditions, problems, or other reasons for care that require ICD-10-CM coding in an ambulatory care encounter/visit either in a hospital clinic, outpatient surgical area, emergency room, physician's office, or other ambulatory care setting.
2. Sequence the ICD-10-CM codes so that the first diagnosis shown in the medical record is the one chiefly responsible for the outpatient services provided during the encounter/visit.
3. Code the secondary diagnoses as follows:
  - a. Chronic diseases that are treated on an ongoing basis may be coded and reported as many times as the patient receives treatment and care for the condition(s).
  - b. Code all documented conditions that coexist at the time of the encounter/visit that require or affect patient care, treatment, or management.
  - c. Conditions previously treated and no longer existing should not be coded.
4. Do not assign External Causes V01–Y99 codes.
5. Do not assign Morphology codes (M codes).
6. Do not assign ICD-10-PCS procedure codes.
7. Assign CPT codes for all surgical procedures that fall in the surgery section.
8. Assign CPT codes from the following *only if* indicated on the case cover sheet:
  - a. Anesthesia section
  - b. Medicine section
  - c. Evaluation and management services section
  - d. Radiology section
  - e. Laboratory and pathology section
9. Assign CPT/HCPCS modifiers for hospital-based facilities, if applicable (regardless of payer).
10. Do not assign HCPCS Level II (alphanumeric) codes.

### Evaluation and Management Mapping

The following map shows how a given facility has determined the criteria for evaluation and management (E/M) code assignment based on an emergency department record. Use the map to determine the correct codes for the emergency record that is provided. *Remember that each facility has the ability to develop its own mapping strategy. Therefore, the mapping scenario for the CCS exam will most likely be different from this one.* The purpose of this exercise is to practice using any mapping criteria that you are provided during the national exam. The following are the points need to determine the level of CPT code:

- Level 1 = 1–20
- Level 2 = 21–35
- Level 3 = 36–47
- Level 4 = 48–60
- Level 5 = > 61
- Critical Care > 61 with constant physician attendance

### CPT Codes

- Level 1 99281 99281–25 with procedure/laboratory/radiology
- Level 2 99282 99282–25 with procedure/laboratory/radiology
- Level 3 99283 99283–25 with procedure/laboratory/radiology
- Level 4 99284 99284–25 with procedure/laboratory/radiology
- Level 5 99285 99285–25 with procedure/laboratory/radiology



Emergency Department Acuity Points					
	5	10	15	20	25
Meds Given	0-2	3-5	6-7	8-9	> 10
Extent of Hx	Brief	PF	EPF	Detail	Comprehensive
Extent of Exam	Brief	PF	EPF	Detail	Comprehensive
Number of Tests Ordered	0-1	2-3	4-5	6-7	> 8
Supplies Used	1	2-3	4-5	6-7	> 8

## E/M MAPPING EXERCISE — EMERGENCY DEPARTMENT RECORD

**DATE OF ADMISSION:** 6/19

**DATE OF DISCHARGE:** 6/19

**HISTORY (Problem Focused):**

**ADMISSION HISTORY:** This 45-year-old African-American male was working in his office when he received news that his daughter, who is in the military, was deployed emergently to the Middle East. He began to have sharp pain in his right chest.

**ALLERGIES:** None

**CHRONIC MEDICATIONS:** None

**FAMILY HISTORY:** Noncontributory

**SOCIAL HISTORY:** The patient smokes one pack of cigarettes per day, but he does not smoke in the house.

**REVIEW OF SYSTEMS:** His integumentary, musculoskeletal, cardiovascular, genitourinary, and gastrointestinal systems are negative.

**PHYSICAL EXAMINATION (Extended Problem Focused):**

**GENERAL APPEARANCE:** This is an alert cooperative male in acute distress.

**HEENT:** PERRLA, extraocular movements are full

**NECK:** Supple

**CHEST:** Lungs are clear without rales or rhonchi. Heart has normal sinus rhythm.

**ABDOMEN:** Soft and nontender, no organomegaly

**EXTREMITIES:** Examination is normal

**LABORATORY DATA:** Urinalysis is normal, EKG normal, chest x-ray is normal. CBC and diff, cardiac enzymes show no abnormalities.

**IMPRESSION:** Noncardiac chest pain

**TREATMENT:** Patient was reassured, counseled to stop smoking, and referred to the clinic for smoking cessation and further management.

**DISCHARGE DIAGNOSES:** Noncardiac chest pain, possible anxiety reaction, smoking

**DISCHARGE INSTRUCTIONS:** The patient was instructed to make an appointment for the clinic tomorrow.



Answer the following questions:

1. What is/are the diagnostic code(s)?
2. Based on the mapping scenario, what CPT code should be used?

(Answers can be found in the Answer Key in the back of this book.)

## Coding Exercises

Code these cases in accordance with the exam coding instruction requirements listed earlier.

### Inpatient

1. Admission for inguinal hernia repair. This 30-year-old patient has acquired immunodeficiency syndrome (AIDS) but is not symptomatic at this time due to medication regimen. The procedure performed was a right indirect inguinal herniorrhaphy via open approach.
2. A 75-year-old male patient was admitted from a nursing home with dehydration and dysphagia due to a previous stroke. During hospitalization the patient was rehydrated and transferred back to the nursing home.
3. A patient is admitted to an acute care facility for detoxification from alcohol and barbiturate intoxication with chronic alcoholism and barbiturate abuse. The patient also has cirrhosis of the liver due to alcoholism.
4. A 30-year-old patient was seen in the emergency department for recurrent epileptic seizures. The patient also had tic douloureux.
5. A patient was admitted to an acute care facility with a temperature of 102 and atrial fibrillation. The chest x-ray reveals pneumonia with subsequent documentation by the physician of pneumonia in the progress notes and discharge summary. The patient was treated with oral antiarrhythmia medications and IV antibiotics.
6. A patient with chronic cholecystitis and gallbladder stones underwent a laparoscopic cholecystectomy in an acute care facility. However, due to extensive gallbladder adhesions the procedure was converted to an open cholecystectomy.
7. A patient is admitted to the inpatient setting with hydronephrosis and a staghorn calculus of the right kidney. The patient underwent an ureteroscopy with placement of bilateral ureteral stents for dilation purposes and removal of calculus of right kidney.
8. A 77-year-old nursing home patient was admitted to the acute care setting for excisional debridement of decubitus stage 3 ulcer of the right heel via surgical excision in the OR. The patient also has degenerative joint disease of both knees.
9. 45-year-old woman was admitted to the inpatient setting for a displacement of a lumbar intervertebral disk. This was treated with a laminectomy and discectomy.
- 10a. A 34-year-old woman delivered a live born, term baby boy (39 weeks) with macrosomia. She had a hemorrhage following an episiotomy with a low forceps delivery but prior to expulsion of the placenta.
- 10b. A single, newborn, term live-born baby boy, born in hospital via vaginal delivery.
11. Twin newborns, both born prematurely at 32 weeks via cesarean section, 1,002 g was the birth weight of the first twin, whose mate was stillborn. The baby was admitted to the nursery from the delivery room. The baby also was treated for jaundice due to ABO incompatibility.
12. A patient is admitted to the acute care facility with chest pain. The patient was awakened from sleep; this was the patient's first experience with chest pain. The patient was given two nitroglycerin tablets in the emergency department. The chest pain was not relieved, resulting in the diagnosis of new onset unstable angina. Serial CPK was normal. Following a left cardiac catheterization with angiogram of multiple coronary arteries with low osmolar contrast, the patient is found to have arteriosclerotic coronary artery disease.
13. This is the first admission for a patient with adenocarcinoma of the right lower lung who was also found with metastasis to the brain. The patient underwent a right lower lung lobectomy via laparotomy.
14. A patient has metastatic adenocarcinoma of bone.
15. A patient is admitted with metastatic carcinoma from breast to liver with previous bilateral mastectomy and no reoccurrence at the primary site.
16. A young woman was admitted after a car hit her from behind while she waited for a bus on the sidewalk. She sustained a fractured fibula shaft and patella on the left leg with a break in the skin at the midcalf. The patient required an open reduction of the left fibula fracture.



## Introduction

17. Syncope; bradycardia ruled out; due to taking Valium as prescribed by a physician. Patient also took an antihistamine as directed on the package without consulting a healthcare provider.
18. Sepsis due to the presence of an indwelling urinary catheter with a positive blood culture reflected in the progress notes of *Staphylococcus aureus* sepsis.
19. Respiratory distress syndrome, 26-day-old baby, temporary tracheostomy completed.

## Ambulatory/Outpatient

20. Noncardiac chest pain, esophageal acid reflux test.
21. Annual screening mammogram.
22. Excision of basal cell carcinoma, 1.9-cm lesion left upper eyelid.
23. Hallux valgus repair with resection of the joint with implant in the first left toe proximal phalanx.
24. Metastatic ovarian cancer to the pleura. Thoroscopic pleurodesis.
25. Symptomatic bradycardia due to sick sinus syndrome with replacement of dual chamber pacemaker generator with removal of old generator.
26. Esophagogastroduodenoscopy with sclerotherapy of esophageal varices.
27. Transurethral resection of the prostate for benign prostatic hypertrophy with electrocautery.
28. Cryosurgical destruction of simple papilloma of the penis.
29. Dysfunctional uterine bleeding for which hysteroscopy with endometrial ablation was undertaken.
30. Incompetent cervix in second trimester with removal of cervical cerclage under spinal anesthesia in a pregnant woman.



# PRACTICE QUESTIONS



A blank answer sheet for these multiple choice questions can be found on page 46.

**Domain I** Health Information Documentation

1. The patient was admitted from the emergency department because of chest pain. Following blood work, it was determined that the patient had elevated CPKs and MB enzymes. The EKG shows nonspecific ST changes. What type of diagnosis might this indicate?
  - a. Unstable angina
  - b. Myocardial infarction
  - c. Congestive heart failure
  - d. Mitral valve stenosis
2. A patient is admitted and diagnosed with fever and urinary burning. The discharge diagnosis is *Escherichia coli*, urinary tract infection. Which of the following represents the correct diagnoses and appropriate sequence of those conditions?
  - a. Fever, urinary burning, urosepsis
  - b. Fever, urinary burning, sepsis
  - c. *Escherichia coli*, urinary tract infection
  - d. Urinary tract infection, *Escherichia coli*
3. A patient was admitted with heart failure within one week of a heart transplant. Due to the timing, the coder thought that it may represent a postoperative transplant rejection following heart transplant. What action(s) should the coding staff take?
  - a. Query the physician.
  - b. Assign the codes for the postoperative transplant rejection.
  - c. Assign only the code for the transplant rejection.
  - d. Assign only the code for heart failure.
4. A patient is admitted to a psychiatric unit of an acute-care facility. The patient experienced the following symptoms almost every day for the last month: loss of interest or pleasure in most or all activities, which is a change from her prior level of functioning. She has also gained 15 lbs, has difficulty falling asleep, feels fatigued, and has difficulty making decisions. What potential diagnosis most closely fits the patient's overall symptoms?
  - a. Insomnia
  - b. Major depression
  - c. Reye's syndrome
  - d. Bipolar disorder



5. A patient is admitted to the hospital complaining of abdominal pain. Following evaluation, it was determined that the patient had an intestinal obstruction of the left colon due to adhesions from a prior abdominal surgery. The patient underwent an exploratory laparotomy with lysis of adhesions. What conditions should be coded?
- Abdominal pain, abdominal adhesions, abdominal obstruction, laparotomy, lysis of adhesions
  - Abdominal adhesions, abdominal obstruction, postoperative complications of the digestive system, laparotomy, lysis of adhesions
  - Abdominal adhesions with obstruction, lysis of adhesions
  - Abdominal adhesions and abdominal obstruction, postoperative complications of the digestive system, lysis of adhesions
5. A patient has a principal diagnosis of pneumonia (J18.9) (MS-DRG 195). Which of the following may legitimately change the coding of the pneumonia in accordance with the UHDDS and relevant clinical documentation?
- Sputum culture reflects growth of normal flora.
  - Patient has a positive gram stain.
  - Patient is found to have dysphagia with aspiration.
  - Patient has nonproductive sputum.
7. A patient is diagnosed with infertility due to endometriosis and undergoes an outpatient laparoscopic laser destruction of pelvic endometriosis. In order to code this encounter accurately, what steps must the coder take?
- Review the operative report to determine what procedure codes to use and also to determine the site or sites of endometriosis so codes with the highest specificity may be assigned, and use infertility as a principal diagnosis.
  - Review the operative report to determine where the laser was used in the pelvis so the site or sites of endometriosis can be specified, and assign a principal diagnosis of infertility.
  - Review the operative report to determine where the laser was used in the pelvis so the site or sites of endometriosis can be specified as principal, and assign a secondary diagnosis of infertility.
  - Review the operative report to determine what procedure codes to use and also to determine the site or sites of endometriosis so codes with the highest specificity may be assigned, and use the diagnosis of infertility as a secondary condition.
8. In order to establish the adequacy of documentation in the medical record the following must be reflected:
- Decisions of patient's caregivers
  - Quantitative analysis of the number of pages
  - Ancillary forms and consents
  - Care rendered to the patient and the patient's response
9. Authentication of health record entries means to:
- Create facsimiles of documents
  - Prove authorship of documents
  - Develop documents
  - Use a rubber stamp on random sets of documents



## Practice Questions

10. The requirements for documentation and record completion (documents such as history and physicals, discharge summaries, and consultations) as well as penalties for non-adherence must be specified in:
- Hospital rules and regulations
  - Conditions of nonparticipation
  - Medical staff bylaws
  - Nursing staff policies

## Domain II *Diagnosis & Procedure Coding*

11. A patient was admitted to the emergency department for abdominal pain with diarrhea and was diagnosed with infectious gastroenteritis. The patient also had angina and chronic obstructive pulmonary disease. List the diagnoses that would be coded in the order of sequence.
- Abdominal pain, infectious gastroenteritis, chronic obstructive pulmonary disease, angina
  - Infectious gastroenteritis, chronic obstructive pulmonary disease, angina
  - Gastroenteritis, abdominal pain, angina
  - Diarrhea, chronic obstructive pulmonary disease, angina
12. A patient was admitted to the endoscopy unit for a screening colonoscopy. During the colonoscopy, polyps of the colon were found and a polypectomy was performed. What diagnostic codes should be used and how should they be sequenced?

Z12.11 Encounter for screening for malignant neoplasm of colon  
D12.6 Benign neoplasm of colon, unspecified

- Z12.11
- D12.6
- Z12.11, D12.6
- D12.6, Z12.11

Please refer to the following when answering questions 13 and 14.

D23- Other benign neoplasms of skin  
Includes: Benign neoplasm of hair follicles  
Benign neoplasm of sebaceous glands  
Benign neoplasm of sweat glands  
Excludes 1:  
benign lipomatous neoplasms of skin (D17.0-D17.3)  
melanocytic nevi (D22.-)



13. When coding benign neoplasm of the skin, the section noted above directs the coder to:

- a. Use category D23 for benign neoplasm of sweat glands
- b. Use category D23 for melanocytic nevi
- c. Use category D23 for benign lipomatous neoplasms of skin
- d. Use category D23 for malignant neoplasm of the skin

14. When coding benign lipomatous neoplasms of skin, the section noted above directs the coder to:

- a. Use category D23
- b. Use a code from D17.0-D17.3
- c. Use code E88.2
- d. Use category D22

15. A patient was discharged from the same-day-surgery unit with the following diagnoses: posterior subcapsular mature incipient senile cataract right eye, diabetes mellitus, hypertension, and was treated for mild acute renal failure. Which codes are correct?

E11.9	Type 2 diabetes mellitus without complications
E11.29	Type 2 diabetes mellitus with other diabetic kidney complication
H25.9	Unspecified age-related cataract
H25.21	Age-related cataract, morgagnian type, right eye
H25.041	Posterior subcapsular polar age-related cataract, right eye
I10	Essential hypertension
I12.9	Hypertensive chronic kidney disease with stage 1 through stage 4, or unspecified chronic kidney disease
N17.9	Acute kidney failure, unspecified

- a. H25.21, E11.29, I12.9, N17.9
- b. H25.041, E11.9, I10, N17.9
- c. H25.9, E11.29, I12.9, N17.9
- d. H25.041, E11.9, I12.9

16. A patient is admitted with an acute exacerbation of COPD with stage 5 hypertensive kidney disease. What is the correct diagnostic code assignment?

I12.0	Hypertensive chronic kidney disease with stage 5 or end-stage renal disease
I12.9	Hypertensive chronic kidney disease, stage 1 through stage 4, or unspecified with chronic kidney disease
J44.1	Chronic obstructive pulmonary disease with exacerbation
J44.9	Chronic obstructive pulmonary disease, unspecified
N18.5	Chronic kidney disease, stage 5

- a. J44.9, I12.0
- b. J44.1, I12.9
- c. J44.9, I12.0
- d. J44.1, I12.0, N18.5



**Practice Questions**

17. A patient is admitted with acute respiratory failure, hypertension, and congestive heart failure. The patient was intubated upon admission to the hospital. What are the correct diagnosis codes and sequencing?

I10	Essential hypertension
I50.9	Heart failure, unspecified
J96.00	Acute respiratory failure, unspecified whether with hypoxia or hypercapnia
J96.20	Acute and chronic respiratory failure, unspecified whether with hypoxia or hypercapnia

- a. J96.00, I10, I50.9
  - b. I50.9, J96.00, I10
  - c. J96.20, I10, I50.9
  - d. I50.9, J96.20, I10
18. A patient is treated for esophageal varices with hemorrhage due to cirrhosis. The diagnostic codes that would be assigned are:

I85.01	Esophageal varices with bleeding
I85.10	Secondary esophageal varices without bleeding
K74.60	Unspecified cirrhosis of liver

- a. I85.01, K74.60
  - b. I85.10, K74.60
  - c. K74.60, I85.01
  - d. K74.60, I85.10
19. A patient had a normal pregnancy and delivery at 39 weeks gestation with loose nuchal cord around neck. Delivery was accompanied by an episiotomy with repair with birth of liveborn male infant. Delivery room record states "no evidence of fetal problem." What diagnosis and procedure codes should be assigned?

O80	Encounter for full-term uncomplicated delivery
O69.81X0	Labor and delivery complicated by cord around neck, without compression, not applicable or unspecified
Z3A.39	39 weeks gestation of pregnancy
Z37.0	Single live birth
10E0XZZ	Delivery of products of conception, external approach
0W8NXZZ	Division of female perineum, external approach
0WQNXZZ	Repair female perineum, external approach

- a. O80, Z3A.39, Z37.0, 0W8NXZZ, 0WQNXZZ
- b. O69.81X0, Z3A.39, Z37.0, 10E0XZZ, 0W8NXZZ
- c. O69.81X0, 0W8NXZZ, 0WQNXZZ
- d. O69.81X0, Z3A.39, Z37.0, 10E0XZZ, 0WQNXZZ



20. Normal twin delivery at 30 weeks. Both babies were delivered vaginally and were liveborn. What conditions should have codes assigned?

O30.003	Twin pregnancy, unspecified number of placenta and unspecified number of amniotic sacs, third trimester
O30.009	Twin pregnancy, unspecified number of placenta and unspecified number of amniotic sacs, unknown trimester
O60.14X0	Preterm labor third trimester with preterm delivery third trimester, not applicable or unspecified
O80	Encounter for full-term uncomplicated delivery
Z3A.30	30 weeks gestation of pregnancy
Z37.0	Single live birth
Z37.2	Twins, both liveborn

- a. O80, Z3A.30, Z37.0
- b. O30.003, Z3A.30, Z37.2
- c. O60.14X0, O30.003, Z3A.30, Z37.2
- d. O80, O30.009, Z3A.30, Z37.2

21. A 45-year-old female with chronic ulcerative enterocolitis and steroid induced osteoporosis due to long-term steroid therapy. What codes should be assigned?

K50.00	Crohn's disease of small intestine without complications
K51.00	Ulcerative pancolitis without complications
M81.0	Age-related osteoporosis without current pathological fracture
M81.8	Other osteoporosis without current pathological fracture
T38.0X5A	Adverse effects of glucocorticoids and synthetic analogues, initial encounter
Z79.52	Long term (current) use of systemic steroids
Z79.899	Other long term (current) drug therapy

- a. K51.00, M81.8, T38.0X5A, Z79.52
- b. K50.00, M81.0, T38.0X5A, Z79.52
- c. K51.00, M81.0, T38.0X5A, Z79.899
- d. K50.00, M81.8, T38.0X5A, Z79.52



# Practice Questions

22. A patient was treated in the emergency department with lacerations of the neck and underwent a repair of two (2) wounds of the neck (2.0 cm and 1.4 cm) with layered closure. What are the diagnosis (excluding external cause codes) and procedure codes assigned?

S11.91XA	Laceration without foreign body of unspecified part of neck, initial encounter
S11.92XA	Laceration with foreign body of unspecified part of neck, initial encounter
0HQ4XZZ	Repair neck skin, external approach
12041	Repair, intermediate, wounds of neck, hands, feet and/or external genitalia; 2.5 cm or less
12042	Repair, intermediate, wounds of neck, hands, feet, and/or external genitalia; 2.6 cm to 7.5 cm

- S11.91XA, 0HQ4XZZ
- S11.92XA, 0HQ4XZZ
- S11.92XA, 12041
- S11.91XA, 12042

23. A 12-year-old boy was seen in an ambulatory surgical center for pain in his right arm. The x-ray showed fracture of ulna. Patient underwent closed reduction of fracture right proximal ulna. What diagnostic and procedure codes should be assigned?

S52.101A	Unspecified fracture of upper end of right radius, initial encounter for closed fracture
S52.101B	Unspecified fracture of upper end of right radius, initial encounter for open fracture
S52.001A	Unspecified fracture of upper end of right ulna, initial encounter for closed fracture
S52.001B	Unspecified fracture of upper end of right ulna, initial encounter for open fracture
OPSH0ZZ	Reposition right radius, open approach
OPSK0ZZ	Reposition right ulna, open approach
24670	Closed treatment of ulnar fracture, proximal end (eg, olecranon or coronoid process(es)); without manipulation
24675	Closed treatment of ulnar fracture, proximal end (eg, olecranon or coronoid process(es)); with manipulation
25560	Closed treatment of radial and ulnar shaft fractures; without manipulation

- S52.101A, S52.001A, OPSK0ZZ
- S52.101B, S52.001B, OPSH0ZZ
- S52.101B, S52.001B, 25560
- S52.001A, 24675

24. Assign the code(s) for endoscopic sinusotomy with bilateral anterior ethmoidectomy.

31231	Nasal endoscopy, diagnostic, unilateral or bilateral (separate procedure)
31254	Nasal/sinus endoscopy, surgical; with ethmoidectomy, partial (anterior)
-50	Bilateral procedure

- 31254
- 31254-50
- 31254, 31254
- 31231



25. Assign the code(s) for bronchoscopy with bilateral transbronchial biopsy.

31628	Bronchoscopy, rigid or flexible, including fluoroscopic guidance, when performed; with transbronchial lung biopsy(s), single lobe
31629	Bronchoscopy, rigid or flexible, including fluoroscopic guidance, when performed; with transbronchial needle aspiration biopsy(s), trachea, main stem and/or lobar bronchus(i)
31632	Bronchoscopy, rigid or flexible, including fluoroscopic guidance, when performed; with transbronchial lung biopsy(s), each additional lobe
-50	Bilateral procedure

- a. 31628
- b. 31628-50
- c. 31628, 31632
- d. 31629

26. Assign the code(s) for diagnostic left and right cardiac catheterization, left and right coronary arteriogram with low osmolar contrast and fluoroscopic guidance.

4A023N6	Measurement of cardiac sampling and pressure, right heart, percutaneous approach
4A023N7	Measurement of cardiac sampling and pressure, left heart, percutaneous approach
4A023N8	Measurement of cardiac sampling and pressure, bilateral, percutaneous approach
B2141ZZ	Fluoroscopy of right heart using low osmolar contrast
B2151ZZ	Fluoroscopy of left heart using low osmolar contrast
B2161ZZ	Fluoroscopy of right and left heart using low osmolar contrast
B2111ZZ	Fluoroscopy of Multiple Coronary Arteries using Low Osmolar Contrast

- a. 4A023N6, 4A023N7
- b. 4A023N8, B2111ZZ
- c. 4A023N6
- d. 4A023N7

27. Assign the code for dilation and curettage for retained products of conception abortion at 11 weeks' gestation.

10A07ZW	Abortion of products of conception, laminaria, via natural or artificial opening
10A07ZZ	Abortion of products of conception, via natural or artificial opening
10D17ZZ	Extraction of products of conception, retained, via natural or artificial opening
10D27ZZ	Extraction of products of conception, ectopic, via natural or artificial opening

- a. 10D17ZZ
- b. 10A07ZZ
- c. 10A07ZW
- d. 10D27ZZ



28. Assign the code(s) for bilateral epidural lumbar injection of steroids:

62282	Injection/infusion of neurolytic substance (eg, alcohol, phenol, iced saline solutions), with or without other therapeutic substance; epidural, lumbar, sacral (caudal)
62311	Injection(s) of diagnostic or therapeutic substance(s) (including anesthetic, antispasmodic, opioid, steroid, other solution), not including neurolytic substances, including needle or catheter placement, includes contrast for localization when performed, epidural or subarachnoid; lumbar or sacral (caudal)
-50	Bilateral procedure

- a. 62282
- b. 62311
- c. 62311, 62311
- d. 62311-50

29. Assign the code(s) for extraction of extracapsular cataract with simultaneous intraocular lens insertion in the right eye.

66982	Extracapsular cataract removal with insertion of intraocular lens prosthesis (1-stage procedure), manual or mechanical technique (eg, irrigation and aspiration or phacoemulsification), complex requiring devices or techniques not generally used in routine cataract surgery (eg, iris expansion device, suture support for intraocular lens, or primary posterior capsulorhexis), or performed on patients in the amblyogenic developmental stage
66983	Intracapsular cataract extraction with insertion of intraocular lens prosthesis (1-stage procedure)
66984	Extracapsular cataract removal with insertion of intraocular lens prosthesis (1-stage procedure), manual or mechanical technique (eg, irrigation and aspiration or phacoemulsification)
-51	Multiple procedures
-RT	Right side

- a. 66982-RT
- b. 66983-RT
- c. 66984-RT
- d. 66984-51

30. Assign the code(s) for chemotherapy for 3 hours' infusion.

96401	Chemotherapy administration, subcutaneous or intramuscular; non-hormonal anti-neoplastic
96413	Chemotherapy administration, intravenous infusion technique; up to 1 hour, single or initial substance/drug
+96415	Chemotherapy administration, intravenous infusion technique; each additional hour (List separately in addition to code for primary procedure.)
-51	Multiple procedures

- a. 96413, 96415, 96415
- b. 96413, 96415-51
- c. 96413, 96413, 96413
- d. 96401



31. Assign the code(s) for chest x-ray, complete.

71010	Radiologic examination, chest; single view, frontal
71020	Radiologic examination, chest, 2 views, frontal and lateral
71030	Radiologic examination, chest, complete, minimum 4 views
71035	Radiologic examination, chest, special views (eg, lateral decubitus, Bucky studies)

- a. 71020
- b. 71030
- c. 71010, 71035
- d. 71035

32. A laparoscopic tubal ligation is completed. What is the correct CPT code assignment?

49320	Laparoscopy, abdomen, peritoneum, and omentum, diagnostic, with or without collection of specimen(s) by brushing or washing (separate procedure)
58662	Laparoscopy, surgical; with fulguration or excision of lesions of the ovary, pelvic viscera, or peritoneal surface by any method
58670	Laparoscopy, surgical; with fulguration of oviducts (with or without transection)
58671	Laparoscopy, surgical; with occlusion of oviducts by device (eg, band, clip, or Falope ring)

- a. 49320, 58662
- b. 58670
- c. 58671
- d. 49320

33. A laparoscopic cholecystectomy was performed. What is the correct ICD-10-PCS code?

0FB40ZZ	Excision of gallbladder, open approach
0FB44ZZ	Excision of gallbladder, percutaneous endoscopic approach
0FT40ZZ	Resection of gallbladder, open approach
0FT44ZZ	Resection of gallbladder, percutaneous endoscopic approach

- a. 0FB40ZZ
- b. 0FT40ZZ
- c. 0FT44ZZ
- d. 0FB44ZZ



**Domain III** *Regulatory Guidelines and Reporting Requirements  
for Acute-Care (Inpatient) Service*

34. The patient is admitted for chest pain and is found to have an acute inferior myocardial infarction with atrial fibrillation. After the atrial fibrillation was controlled and the patient was stabilized, the patient underwent a CABG X2 from aorta, autologous venous tissue using the left greater saphenous vein which was harvested via an open approach. The appropriate sequencing and ICD codes for the hospitalization would be:

I25.10	Atherosclerotic heart disease of native coronary artery without angina pectoris
I21.19	ST elevation (STEMI) myocardial infarction involving other coronary artery of inferior wall
I22.1	Subsequent ST elevation (STEMI) myocardial infarction of inferior wall
I21.3	ST elevation (STEMI) myocardial infarction, of unspecified site
I22.9	Subsequent ST elevation (STEMI) myocardial infarction of unspecified site
I48.91	Unspecified atrial fibrillation
R07.9	Chest pain, unspecified
021109W	Bypass coronary artery, two sites from aorta with autologous venous tissue, open approach
06BQ0ZZ	Excision of left greater saphenous vein, open approach

- a. R07.9, I21.34, I48.91, I22.9, 021109W  
 b. I21.19, I48.91, I22.9, I48.91, 021109W  
 c. I21.19, I25.10, I48.91, 021109W, 06BQ0ZZ  
 d. I22.1, I48.91, I21.19, 021109W
35. If a patient has a principal diagnosis of septicemia, which of the following procedures will increase the MS-DRG assignment the most?
- a. Bronchoscopy with left bronchus biopsy (0BB74ZX)  
 b. Debridement of toenail (0HBRXZZ)  
 c. Nonexcisional debridement of skin ulcer of perineum with abrasion (0HD9XZZ)  
 d. Respiratory Ventilation, Greater than 96 Consecutive Hours (5A1955Z)



36. The patient is discharged with hemiplegia and aphasia associated with a cerebral infarction of the left side of the brain. The patient is right-handed and also has a history of hypertension and compensated congestive heart failure (both conditions currently controlled on medication and treated while in the hospital). What code assignment would be appropriate?

G81.90	Hemiplegia, unspecified affecting unspecified side
G81.91	Hemiplegia, unspecified affecting right dominant side
G81.92	Hemiplegia, unspecified affecting left dominant side
I10	Essential hypertension
I50.9	Heart failure, unspecified
I63.50	Cerebral infarction due to unspecified occlusion or stenosis of unspecified cerebral artery
I66.9	Occlusion and stenosis of unspecified cerebral artery
I69.320	Aphasia following cerebral infarction

- a. I63.50, G81.91, I69.320, I50.9, I10
- b. G81.90, I69.320, I50.9, I10
- c. I66.9, G81.90, I69.320
- d. I63.50, G81.91, I69.320

37. A patient is admitted with hemoptysis. A bronchoscopy with transbronchial biopsy of the lower lobe was undertaken that revealed squamous cell carcinoma of the right lung. Which conditions should be identified as present on admission?

C34.30	Malignant neoplasm of lower lobe, unspecified bronchus or lung
C34.31	Malignant neoplasm of lower lobe, right bronchus or lung
P26.9	Unspecified pulmonary hemorrhage originating in the perinatal period
R04.2	Hemoptysis

- a. C34.30
- b. R04.2
- c. C34.31, R04.2
- d. C34.30, P26.9, R04.2

38. Medicare reimbursement depends on all of the following, *except*:

- a. The correct designation of the principal diagnosis
- b. Policies and procedures of the medical staff
- c. The presence or absence of additional codes that represent complications, comorbidities, or major complications/comorbidities
- d. Procedures performed

39. A coder reviews a medical record and determines that a code Medicare has designated as "unacceptable principal diagnosis" is the correct code to assign. What should the coder do?

- a. Assign another code from the history and physical as the principal diagnosis
- b. Assign the code even though the insurer may not pay the claim
- c. Use a comorbidity as the principal diagnosis
- d. Assign a code from the outpatient visit prior to admission



40. A condition is present on admission when:
- a. It is the principal diagnosis
  - b. It is accordance with medical staff bylaws
  - c. A condition that occurs prior to an inpatient admission
  - d. It is present within 3 days after admission
41. Documentation from the nursing or other allied health professionals' notes can be used to establish which of the following diagnoses:
- a. Body mass index (BMI)
  - b. Malnutrition
  - c. Aspiration pneumonia
  - d. Fatigue

**Domain IV** *Regulatory Guidelines and Reporting Requirements for Outpatient Services*

42. Carcinoma of multiple overlapping sites of the bladder. Diagnostic cystoscopy and transurethral fulguration of bladder lesions (1.9 cm, 6.0 cm) are completed and a skin lesion was also removed from the left thigh. What modifier should be added to the procedure codes?
- a. -50, Bilateral procedure
  - b. -51, Multiple procedures
  - c. -59, Distinct procedural service
  - d. -99, Multiple modifiers
43. A bronchoscopy with biopsy of the left bronchus was completed and revealed adenocarcinoma. What, if any, modifier should be added to the procedure codes?
- a. -50, Bilateral procedure
  - b. -51, Multiple procedures
  - c. -LT, Left side
  - d. No modifiers should be reported.



44. Wide excision of 0.65-cm malignant melanoma (margins included) from right forearm. The diagnosis and procedure codes reported are:

C43.61	Malignant melanoma of right upper limb, including shoulder
C76.41	Malignant neoplasm of right upper limb
11401	Excision, benign lesion including margins, except skin tag (unless listed elsewhere), trunk, arms, or legs; excised diameter 0.6 to 1.0 cm
11601	Excision, malignant lesion including margins, trunk, arms, or legs; excised diameter 0.6 to 1.0 cm
25075	Excision, tumor, soft tissue of forearm and/or wrist area, subcutaneous; less than 3 cm

- a. C43.61, 11401
- b. C76.41, 11601
- c. C43.61, 11601
- d. C43.61, 25075

45. What diagnoses and procedures should be reported for colonoscopy with cauterization of diverticular bleeding?

K57.30	Diverticulosis of large intestine without perforation or abscess without bleeding
K57.31	Diverticulosis of large intestine without perforation or abscess with bleeding
K57.33	Diverticulitis of large intestine without perforation or abscess with bleeding
K92.2	Gastrointestinal hemorrhage, unspecified
45382	Colonoscopy, flexible, proximal to splenic flexure; with control of bleeding (eg, injection, bipolar cautery, unipolar cautery, laser, heater probe, stapler, plasma, coagulator)

- a. K57.30, K92.2, 45382
- b. K57.31, 45382
- c. K57.33, 45382
- d. K92.2, K57.30, 45382

46. What diagnoses and procedures should be reported for recurrent left inguinal hernia with laparoscopic repair?

K40.30	Unilateral inguinal hernia, with obstruction, without gangrene, not specified as recurrent
K40.31	Unilateral inguinal hernia, with obstruction, without gangrene, recurrent
K40.91	Unilateral inguinal hernia, without mention of obstruction or gangrene, recurrent
49520	Repair recurrent inguinal hernia, any age; reducible
49521	Repair recurrent inguinal hernia, any age; incarcerated or strangulated
49651	Laparoscopy, surgical; repair recurrent inguinal hernia

- a. K40.91, 49520
- b. K40.31, 49521
- c. K40.91, 49651
- d. K40.30, 49520



47. A patient was admitted after a fall down the steps. The patient was unconscious for approximately 45 minutes and was admitted to the emergency department (ED) within 3 hours of the fall. A CT scan was performed within an hour of admission to the ED. A cerebral contusion was diagnosed by the ED physician based on the findings in the CT scan. What conditions should be reported on the Uniform Billing form 04 (UB-04)?

R40.0	Somnolence
S02.91XA	Unspecified fracture of skull, initial encounter for closed fracture
S06.331A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of 30 minutes or less, initial encounter
S06.332A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of 31 minutes to 59 minutes, initial encounter
W10.9XXA	Fall (on) (from) unspecified stairs and steps, initial encounter

- a. S02.91XA, W10.9XXA
  - b. R40.0
  - c. S06.331A, W10.9XXA
  - d. S06.332A, W10.9XXA
48. The UHDDS definition of principal diagnosis does not apply to the coding of outpatient encounters because:
- a. There is not enough documentation
  - b. Usually there are multiple reasons for the encounter
  - c. No after study element is involved as continued evaluation cannot occur
  - d. A pre-admission work up is not available
49. In 2000, the Centers for Medicare and Medicaid Services (CMS) issued the final rule on the outpatient prospective payment system (OPPS). This program:
- a. Identified the payment structure for long-term care
  - b. Divided outpatient services into fixed-payment groups
  - c. Created less opportunity for health information management professionals
  - d. Facilitated greater use of ICD-9-CM procedure codes
50. The use of the outpatient code editor (OCE) is designed to:
- a. Correct documentation of home health visits
  - b. Facilitate reporting of adverse drug events
  - c. Reduce the use of computer assisted coding
  - d. Identify incomplete or incorrect claims



**Domain V Data Quality and Management**

51. Cystourethroscopy with removal of two lesions of separate locations in the bladder, one is 1.5-cm bladder tumor anterior wall and one is 0.75-cm in the lateral wall. What coding rule applies?
- Two CPT codes should be used with a modifier -59.
  - Two CPT codes should be used.
  - Code only the CPT code for cystourethroscopy.
  - Code only the largest tumor.
52. Diagnostic-related groups (DRGs) and ambulatory patient classifications (APCs) are similar in that they are both:
- Determined by HCPCS codes
  - Focused on hospital outpatients
  - Focused on hospital inpatients
  - Prospective payment systems

*Please refer to the following data when answering questions 53 and 54 (Note: The MS-DRG numbers and weights are not actual numbers and weights for fiscal year 2015.)*

MS-DRG	MS-DRG Relative Weight	Number of Patients
191	2.0	10
192	1.5	10
193	1.0	10

53. The case-mix index for the information provided above is:
- 0.679
  - 0.89
  - 1.5
  - 0.75
54. The information provided shows that:
- The payment is higher for patients with DRG 191
  - There are more patients with DRG 191
  - The case-mix index could be increased if more patients in DRG 193 were admitted
  - The case mix would not increase if more patients in DRG 193 were admitted
55. Generally, data quality is defined as:
- Ensuring the greatest amount of data possible is obtained from the medical record
  - Ensuring the accuracy and completeness of an organization's data
  - Ensuring accuracy of the case-mix index
  - Ensuring the optimal reimbursement for each encounter



56. A method of checking the accuracy of data is to:
- a. Validate the purpose for the data collection
  - b. Warehouse data on a regular basis
  - c. Authenticate all end users
  - d. Ensure that each record or entry within the database is correct
57. Before an organization can measure the quality of information it produces it must:
- a. Establish a data quality committee
  - b. Investigate if there are fraudulent processes in current use
  - c. Determine all attributes of poor quality
  - d. Establish data standards within the organization

## Domain VI *Information and Communication Technologies*

58. A surgeon would like to undertake a research study on his patients with stage II malignant melanoma of the back, who have undergone wide excision of the melanoma. What work processes and associated software could be used to provide this information?
- a. Obtain a summary of the cases from the cancer registry, import them into a spreadsheet, and provide to the surgeon.
  - b. Obtain a summary of the cases from the chart completion software, import them into a spreadsheet, and provide to the surgeon.
  - c. Obtain a summary of the cases from the master patient index, import them into a spreadsheet, and provide to the surgeon.
  - d. Obtain a summary of the cases from the transcription tracking software, import them into a spreadsheet, and provide to the surgeon.
59. A quality improvement study showed that newborn codes associated with maternal conditions are not being coded as often as they should. What HIM software could be used to identify the mother's chart so it can be reviewed at the time the newborn record is coded?
- a. Birth certificate registry or master patient index
  - b. Transcription registry or correspondence registry
  - c. Quality improvement or operative registry
  - d. Pathology or laboratory information
60. Databases utilize data models and data dictionaries. Which of the statements below are true for these two important tools?
- a. Data models are entities that store individual data; data dictionaries are an alphabetic index of all data values
  - b. Data models are used for relational databases only; data dictionaries are used for object-oriented databases
  - c. Data models provide the conceptual and graphical framework that helps define the entity and its attributes; data dictionaries provide details on each data element
  - d. Data models represent a standard model of a database; data dictionaries provide a listing of all data elements along with their attributes



61. A data map or crosswalk consists of:
  - a. Terms used to describe paths between classifications and vocabularies
  - b. A map of time frames for multiple project completion
  - c. A descriptive list of data names
  - d. Normalized data attributes
62. The most common language used for both data definition language and data manipulation language is:
  - a. Unified modeling language
  - b. JAVA
  - c. Perl
  - d. Structured query language

### **Domain VII** *Privacy, Confidentiality, Legal, and Ethical Issues*

63. A facility located near a national park has a significant number of snake bites, and patients receive treatment with antivenom in urgent-care settings. Sometimes a patient is admitted to the hospital after several days. Can the urgent-care setting provide the hospital with a list of names of patients treated with snake antivenom?
  - a. Only the names of patients who are admitted to the hospital can be requested if the physician needs it for continuity of care, but an entire list of patients cannot be provided.
  - b. A list of names could be provided.
  - c. No information can be obtained under any circumstances.
  - d. A list of patients may be available after consultation with the national park ranger.
64. The patient was admitted for breast carcinoma in the right breast at two o'clock. This was removed via lumpectomy. The patient was found to have 1 of 7 lymph nodes positive for carcinoma during axillary lymph node dissection. One of the patient's neighbors who is also a coworker at the hospital called the coding department to get the patient's diagnosis because she is a cancer survivor herself. The coder should:
  - a. Discuss the case with the coworker
  - b. Report the incident to hospital security
  - c. Give the caller false information
  - d. Explain that discussing the case would violate the patient's right to privacy
65. The billing department has requested that copies of the final coding summary with associated code meanings for Medicare be printed remotely in the admission department. Currently they request the summaries only when there is an unspecified procedure. Each time the coding supervisor goes to the admission department, the coding summaries have been left on a table near the patient entrance. Of the actions presented here, what would be the best action for the coding supervisor to take?
  - a. Comply with the request.
  - b. Refuse to undertake this without further explanation.
  - c. Ignore the request.
  - d. Explain to the billing department supervisor that leaving the coding summary in public view violates the patient's right to privacy.



## Domain VIII Compliance

66. A female patient is admitted for a second-degree cystocele. A repair is performed. In order to code this accurately, what document provides the required additional information?
  - a. History and physical
  - b. Discharge summary
  - c. Consultation
  - d. Operative report
67. In order to accurately code a cardiac catheterization, what needs to be determined based on a review of the documentation?
  - a. The approach and the side of the heart (chambers) into which the catheter was inserted
  - b. The approach, the side of the heart (chambers) into which the catheter was inserted, as well as any additional procedures performed
  - c. The duration of the procedure
  - d. If there is documentation of the procedure in the medical record that stents are considered
68. A 70-year-old patient has congestive heart failure and hypertension with end-stage renal disease. What code would be assigned?
  - a. I11.0, Hypertensive heart disease with heart failure
  - b. I13.2, Hypertensive heart and chronic kidney disease with heart failure and with stage 5 chronic kidney disease, or end stage renal disease
  - c. I50.9, Heart failure, unspecified and N18.6, End stage renal disease
  - d. N18.6, End stage renal disease or N18.5, Chronic kidney disease, stage 5
69. A 35-year-old woman has hypertension with acute renal failure and stage 3 chronic kidney disease. What code would be assigned?
  - a. N17.9, Acute kidney failure, unspecified
  - b. I13.2, Hypertensive heart and chronic kidney disease with heart failure and with stage 5 chronic kidney disease, or end stage renal disease
  - c. I50.9, Heart failure, unspecified
  - d. N17.9, Acute kidney failure, unspecified and I12.9, Hypertensive chronic kidney disease with stage 1 through stage 4 chronic kidney disease, or unspecified chronic kidney disease and N18.3, Chronic kidney disease, stage 3 (moderate)
70. A 55-year-old patient has malignant hypertensive heart disease with congestive heart failure. What code would be assigned?
  - a. I15.8, Other secondary hypertension
  - b. I11.0, Hypertensive heart disease with heart failure and I50.9, Heart failure, unspecified
  - c. I50.9, Heart failure, unspecified and I15.0, Renovascular hypertension
  - d. N18.6, End stage renal disease
71. The CPT definition of a *surgical package* contains which of the following?
  - a. The surgical procedure(s)
  - b. Follow-up surgery
  - c. Preoperative tests
  - d. Yearly follow-up visits



72. Current Procedural Terminology (CPT) defines a separate procedure as which of the following?
- When performed in conjunction with another service, is considered an integral part of the major service
  - Provision of anesthesia
  - Joint aspiration is required
  - Pre-operative evaluation is not required
73. Using the following evaluation and management map, which answers represent documentation that should be considered, when assigning an E/M example for hospital acuity points assignment?

*Evaluation and Management Mapping*

The following are the points needed to determine the level of CPT code:

Level 1 = 1-20

Level 2 = 21-35

Level 3 = 36-47

Level 4 = 48-60

Level 5 = > 61

Critical Care > 61 with constant physician attendance

**CPT Codes**

Level 1 = 99281 99281-25 with procedure/laboratory/radiology

Level 2 = 99282 99282-25 with procedure/laboratory/radiology

Level 3 = 99283 99283-25 with procedure/laboratory/radiology

Level 4 = 99284 99284-25 with procedure/laboratory/radiology

Level 5 = 99285 99285-25 with procedure/laboratory/radiology

Emergency Department Acuity Points					
	5	10	15	20	25
Meds Given	0-2	3-5	6-7	8-9	>10
Extent of Hx	Brief	PF	EPF	Detail	Comprehensive
Extent of Exam	Brief	PF	EPF	Detail	Comprehensive
Number of Tests Ordered	0-1	2-3	4-5	6-7	>8
Supplies Used	1	2-3	4-5	6-7	>8

- The surgical procedure performed
  - The anesthesia provided
  - Number of tests ordered
  - The post visit follow-up date
74. To accurately code wound closures, what questions need to be answered?
- The number of surgical procedures undertaken
  - What type of repair was undertaken: simple, intermediate, or complex? and The site or body part involved, and what is the extent of the wound?
  - Number of tests ordered and Supplies used
  - What is the length of the repair in centimeters?



## Multiple Choice Practice Answers

1.	20.	39.	58.
2.	21.	40.	59.
3.	22.	41.	60.
4.	23.	42.	61.
5.	24.	43.	62.
6.	25.	44.	63.
7.	26.	45.	64.
8.	27.	46.	65.
9.	28.	47.	66.
10.	29.	48.	67.
11.	30.	49.	68.
12.	31.	50.	69.
13.	32.	51.	70.
14.	33.	52.	71.
15.	34.	53.	72.
16.	35.	54.	73.
17.	36.	55.	74.
18.	37.	56.	
19.	38.	57.	



CCS

# PRACTICE CASE STUDIES



*Note: Review the Procedures for Coding Medical Record Cases for the CCS Examination in the Introduction of this book.*

### AMBULATORY CASE—PATIENT 1

**FACE SHEET**

**DATE OF ADMISSION:** 4/5

**DATE OF DISCHARGE:** 4/5

**SEX:** Male

**AGE:** 37

**DISCHARGE DISPOSITION:** Home

**ADMISSION DIAGNOSIS:** Left inguinal hernia

**DISCHARGE DIAGNOSIS:** Same

**PROCEDURES:** Left inguinal herniorrhaphy with excision of lipoma of spermatic cord

### HISTORY AND PHYSICAL EXAMINATION—PATIENT 1

**ADMITTED:** 4/5

**HISTORY OF PRESENT ILLNESS:** The patient has been well until several months ago when he began to have pain when lifting.

**PAST MEDICAL HISTORY:** The patient has no other significant medical or surgical history.

**SOCIAL HISTORY:** Does not use alcohol or tobacco.

**ALLERGIES:** No known allergies

**MEDICATIONS:** None

**REVIEW OF SYSTEMS:**

**SKIN:** Warm and dry, mucous membranes moist

**HEENT:** Essentially normal

**LUNGS:** Clear to percussion and auscultation

**HEART:** Normal, regular rhythm

**ABDOMEN:** Normal

**GENITALIA:** Palpable mass in inguinal canal

**RECTAL:** Normal

**EXTREMITIES:** No edema

**NEUROLOGIC:** Deep tendon reflexes normal

**IMPRESSION:** Left inguinal hernia

**PLAN:** Surgical repair of inguinal hernia



**PROGRESS NOTES—PATIENT 1**

DATE	NOTE
4/5	Nursing: Betadine scrub performed, patient anxious to get surgery over; preoperative medications given as ordered.
4/5	Attending MD: Brief op note Dx: Left inguinal hernia Px: Left inguinal herniorrhaphy Anes: Local plus sedation Complications: None
4/5	Attending MD: No bleeding; patient okay for discharge.

**OPERATIVE REPORT—PATIENT 1****DATE:** 4/5**PREOPERATIVE DIAGNOSIS:** Left direct inguinal hernia**POSTOPERATIVE DIAGNOSIS:** Left direct inguinal hernia**OPERATION:** Left inguinal herniorrhaphy**ANESTHESIA:** Local plus sedation**OPERATIVE INDICATIONS:** A wide mouth direct sac was present in the lower inguinal canal. A lipoma of the cord was present, but no indirect sac.

**OPERATIVE PROCEDURE:** Under local anesthesia consisting of the equivalent of 19 cc of 1% Xylocaine and 8 cc of 0.5% Marcaine, the abdomen was prepared with Betadine and sterilely draped. A left inguinal incision was made and carried down through subcutaneous tissues to the aponeurosis of the external oblique, which was opened from the external ring to a point over the internal ring. Flaps were cleaned in both directions. The nerve was retracted inferiorly. The cord structures were separated from the surrounding at the level of the pubic tubercle and retracted with a Penrose drain. Cremaster over the cord was opened and a search made for an indirect sac. None was found. Lipoma of the cord was dissected free and clamped at its base and excised. The base was ligated with 00 chromic catgut. Additional cremasteric muscles were divided and ligated with 00 chromic catgut. The direct sac was further dissected down to its base and inverted as the defect was closed by approximating transversus to transversus with a running suture of 00 Vicryl. The floor of the canal was then closed by approximating the internal oblique to the shelving portion of the inguinal ligament with multiple sutures of 0 Ethibond. The external oblique aponeurosis was then reclosed with 0 Ethibond, leaving the cord and nerve in the subcutaneous position. Several sutures of 0 Ethibond were also placed above the emergence of the cord at the internal ring. Subcutaneous tissues were then approximated with 3-0 Vicryl and after irrigation skin was closed with skin clips. The patient tolerated the procedure well and was sent to the recovery room in good condition.



**PATHOLOGY REPORT—PATIENT 1****DATE SPECIMEN SUBMITTED:** 4/5**SPECIMEN:** Lipoma of cord**CLINICAL DATA:****GROSS DESCRIPTION:** The specimen is submitted as lipoma of cord. It consists of a single irregularly shaped fragment of fatty tissue that is  $8.0 \times 4.0 \times 1.5$  cm. It is covered with a thin membrane.**MICROSCOPIC DESCRIPTION:****DIAGNOSIS:** Lipomatous tissue of left spermatic cord**PHYSICIAN'S ORDERS—PATIENT 1**

DATE	ORDER
4/5	Attending MD: Admit to same-day surgery Betadine scrub $\times 3$ Preop May take own meds
4/5	Anesthesia note: Continue NPO Demerol 50 mg IM $1\frac{1}{2}$ hr Preop Vistaril 50 mg IM $1\frac{1}{2}$ hr Preop Atropine 0.4 mg IM $1\frac{1}{2}$ hr Preop
4/5	Attending MD: Vital signs q. 15 min until stable Regular diet Darvocet-N-100 q. 4 hrs p.r.n. pain Discharge to home when stable



**LABORATORY REPORTS—PATIENT 1****HEMATOLOGY**

DATE: 4/5

Specimen	Results	Normal Values
WBC	6.83	4.3–11.0
RBC	4.57	4.5–5.9
HGB	13.7	13.5–17.5
HCT	43	41–52
MCV	87.0	80–100
MCHC	35	31–57
PLT	300	150–400

**AUTO DIFFERENTIAL—PATIENT 1**

DATE: 4/5

Specimen	Results	Normal Values
NEUT	68.3	40.0–74.0
LYMPH	20	19.0–48.0
MONO	5.6	3.4–9.0
EOS	5.6	0.0–7.0
BASO	0.6	0.0–1.5
LUC	3.8	0.0–4.0

**URINALYSIS—PATIENT 1**

DATE: 4/5

Test	Result	Ref Range
SP GRAVITY	1.017	1.005–1.035
PH	6	5–7
PROT	TRACE	NEG
GLUC	NONE	NEG
KETONES	NONE	NEG
BILI	NONE	NEG
BLOOD	TRACE	NEG
NITRATES	NONE	NEG
RBCS	NONE	NEG
WBCS	NONE	NEG



**RADIOLOGY REPORT—PATIENT 1****DATE:** 4/5**DIAGNOSIS:** Inguinal hernia**EXAMINATION:** Chest x-ray

Heart size and shape are acceptable. The lung fields are clear and the pulmonary vascular pattern is unremarkable. There is no free fluid and the trachea remains midline.

Enter two diagnosis codes and two procedure codes.

**PDX****DX2****PP1****PR2**



**AMBULATORY CASE—PATIENT 2**

**DIAGNOSIS:** Low back pain, lumbar radiculopathy with chronic pain syndrome

**HISTORY:** This is an 18-year-old white female with low back pain and lumbar radicular pain for epidural steroid injection. The patient had an epidural approximately three weeks ago with approximately 30% improvement. The patient is agreeable for an additional epidural steroid injection for pain management.

**PROCEDURE:** Epidural steroid injection under C-arm guidance via caudal approach and epidurogram. The patient was transferred to the operating room and placed in the prone position. Under MAC anesthesia her low back and sacral areas were sterilely prepped and draped. Local 1% lidocaine was applied with a #23-gauge needle through the skin and surrounding tissues of the sacral hiatus. Then a #17-gauge Epimed needle was inserted percutaneously through the sacral hiatus into the epidural space. This was confirmed via lateral view of the C-arm. Then under AP fluoroscopy, a #18-gauge Epimed catheter was guided to the mid L3-L4 area of the nerve root in the midline. Next, 2 cc of Isovue dye were injected, which showed good bilateral spread in the epidural space. A solution of 6 cc of normal saline, 80 mg of Depo-Medrol and 2 cc of 1% lidocaine was partially deposited at the L3-L4 nerve root. The catheter was then moved down to the L4-L5 nerve root in the midline of the epidural space. An additional 1 cc of Isovue dye was injected, which showed good bilateral spread. An additional one third of local anesthetic Depo-Medrol solution was deposited at the L4-L5 nerve root. The catheter was then moved down to the L5-S1 nerve root and in the midline. Another 1 cc of Isovue dye was injected, which confirmed good bilateral spread and highlighting of the L5-S1 nerve roots bilateral. The remaining local anesthetic Depo-Medrol solution was deposited at the L5-S1 nerve root. The catheter and needle were then pulled intact and the patient was transferred to the recovery room in satisfactory condition.

**IMPRESSION:** Low back pain, lumbar radiculopathy. This is the patient's second epidural steroid injection.

**FOLLOW-UP:** After seeing improvement in the next 24 to 48 hours and repeat injection if necessary.

Enter two diagnosis codes and one procedure code.

PDX

DX2

PP1



**AMBULATORY RECORD—PATIENT 3****DATE:** 8/12/20XX**SURGERY RECORD:**

**PATIENT HISTORY:** This patient is seen today to insert an intrathecal pump for pain management due to ductal carcinoma of the left upper and lower quadrants of left breast metastatic to the vertebrae of the spine. She previously underwent modified radical mastectomy within the last month and a half with general anesthesia and had no adverse effects. No other surgical history is given. No known allergies, no current medications. Review of systems is normal ASA = 2.

Following preoperative evaluation and discussion with the patient, local anesthesia was used to implant an intrathecal programmable pump surgically placed and attached to a previously placed catheter. The patient tolerated the procedure well. There were no adverse effects of anesthesia.

*Enter three diagnosis codes and one procedure code.*

**PDX****DX2****DX3****PP1**



**AMBULATORY RECORD — PATIENT 4****PREOPERATIVE DIAGNOSIS:** Reflex sympathetic dystrophy, left knee**POSTOPERATIVE DIAGNOSIS:** Reflex sympathetic dystrophy, left knee**OPERATION:** Left lumbar sympathetic block with C-arm**ANESTHESIA:** Local**INDICATIONS:**

This 43-year-old female has a 7-month history of left knee pain. She says that even a light touch appears to be exquisitely painful. She has had surgery to clear scar tissue.

**PROCEDURE DESCRIPTION:**

The patient was placed on the x-ray lucent gurney in the right lateral decubitus position. The back was prepped with Betadine, and the midline spinous processes were marked. A line was drawn 6 to 7 cm lateral to that midline on the left. L2 was identified using the C-arm and lateral projections, and lidocaine was infiltrated at the skin. The 22-gauge, 6-inch Chiba needle was advanced down to and off the body of L2, and loss of resistance was obtained with a glass syringe. Renografin-60 was injected and showed a good distribution. So 15 cc of bupivacaine 0.5% without epinephrine was injected, plus Depo-Medrol 40 mg. The needle was withdrawn.

Then lidocaine was infiltrated on the 6- to 7-cm line at L4. I advanced the 22-gauge, 6-inch needle off the body of L4, but the Renografin-60 distribution appeared not to be adequate. Another wheal was raised at the L3 level, and the needle was advanced down to and off the body of L3. A loss of resistance was obtained with a glass syringe, followed by Renografin-60. This time, the distribution was excellent, and bupivacaine 0.5% without epinephrine = 15 cc was injected. She was left on her side for 25 minutes. After 10 minutes, she had a noticeably warmer left foot and ankle. The skin coloration of the left leg was normal.

*Enter one diagnosis code and two procedure codes.*

PDX

PP1

PR2



## INPATIENT CASE—PATIENT 5

**DATE OF ADMISSION:** 1/5

**DATE OF DISCHARGE:** 1/7

**DISCHARGE DIAGNOSIS:**

Adenocarcinoma of the endometrium  
Hemoperitoneum  
Postoperative hemorrhage  
Hypovolemic, hemorrhagic shock secondary to blood loss

**COURSE IN HOSPITAL:** The patient was taken to the operating room on 1/5 where a laparoscopically assisted vaginal hysterectomy was carried out.

At approximately 6:30 p.m. on the same day, I was called back into the hospital's recovery room because the patient was in shock with blood pressure of 80/60 with poor urine output and distended abdomen.

At this point it was decided to do an emergency diagnostic laparoscopy with preoperative diagnosis of postoperative hemorrhage. Bleeders were controlled with hemostatic sutures applied through the laparoscope.

The immediate postoperative course was essentially stormy with urine output maintained at 30 mL/h.

An ultrasound of the abdomen and pelvis was requested on the second postoperative day and this revealed normal renal shadow; no abnormal fluid accumulation in the pelvis or in the abdominal wall. The patient was then transferred to the regular floor on 1/6 after having maintained a satisfactory postoperative course from the second surgical procedure. The Jackson-Pratt drain was removed on 1/7 with closure of the abdominal incision with Steri-strips. The patient remained afebrile. She had been out of bed with good urine output and tolerating house diet. Her activities were increased gradually. Hemoglobin was again checked prior to discharge and was 12.1 g.

The patient was discharged to home on 1/7.

**INSTRUCTIONS ON DISCHARGE:** Regular diet. Follow up with appointment in my office in 3 days and with a colonoscopy for colon screening in light of family history of colon cancer.



**HISTORY AND PHYSICAL EXAMINATION — PATIENT 5**

**ADMITTED:** 1/5

**REASON FOR ADMISSION:** Vaginal bleeding

**HISTORY OF PRESENT ILLNESS:** This is a 62-year-old white female, gravida IV, para IV. She states that she has been in good health and has not had any gynecological complaints. During the past year she has had some left lower-quadrant pain and has noted post-coital bleeding. The bleeding has also occurred on and off for several months.

**PAST MEDICAL HISTORY:** Hypothyroidism due to thyroidectomy many years ago for benign tumor. No other serious illnesses, operations, or hospitalizations. The patient takes Synthroid 0.200 mcg.

**ALLERGIES:** No known drug or food allergies

**CHRONIC MEDICATIONS:** Synthroid 0.200 mcg

**FAMILY HISTORY:** Her mother died of colon cancer at age 53 years.

**SOCIAL HISTORY:** The patient is married with four children. She does not drink or smoke.

**REVIEW OF SYSTEMS:** HEENT essentially negative; wears glasses. Cardiorespiratory; no cough, dyspnea, cyanosis or chest pain. Gastrointestinal; no specific digestive or bowel complaints with the exception of the nonspecific left lower quadrant pain. The patient has no specific urinary complaints. The patient has a low hemoglobin level.

**PHYSICAL EXAMINATION:**

**GENERAL APPEARANCE:** Well-developed, well-nourished 62-year-old woman in no acute distress

**HEENT:** Essentially negative

**LUNGS:** Clear to P & A

**HEART:** Regular in force, rate, and rhythm. There are no audible murmurs.

**ABDOMEN:** No hernia or palpable masses. Abdomen is soft and flat. Peristalsis is normal. There are no areas of tenderness.

**GENITALIA:** Bimanual examination reveals the external genitalia to be normal. The uterus is of normal size. There are no palpable pelvic masses or tenderness.

**RECTAL:** Negative

**IMPRESSION:** Postmenopausal bleeding, possible endometrial carcinoma with blood loss anemia

**PLAN:** Vaginal hysterectomy



**PROGRESS NOTES—PATIENT 5****DATE      NOTE**

1/5      The patient is admitted for LAVH because of postmenopausal bleeding. She has also had left lower-quadrant pain. General condition is good.

Operative Note:

Preop: Possible adenocarcinoma of the endometrium

Postop: Same, pathology pending

Procedure: LAVH

Anesthesia: General

**FINDINGS:** Tubes and ovaries were within normal limits. Uterus is submitted for pathologic examination. Estimated blood loss is 300 cc. Called back to the RR for decrease in blood pressure and decreased urine output. The patient was found to have abdominal distention as well. The patient was given 3 units of blood and taken back to the operating room for evaluation of postoperative hemorrhage.

**OPERATIVE NOTE:**

1/5      Preop: Postop hemorrhage

Postop: Accidental laceration of epigastric artery, acute blood loss anemia

Procedure: Repair of bleeding vessel via laparoscope

Anesthesia: General

EBL: 1,500 to 2,000 mL of blood

The patient was admitted to the ICU following surgery where we will monitor her progress throughout the night.

1/6      Patient is doing well today. The BP is stable, urine output good—diuresing well, wound clean and dry, healing well. Will transfer her to the surgical floor.

1/7      The patient is stable, offers no complaints. Will discharge to home.



## PHYSICIAN'S ORDERS—PATIENT 5

DATE	ORDER
1/5	Admit for LAVH Type and cross 4 units of blood, CBC Prepare for vaginal hysterectomy Synthroid 0.200 mcg daily NPO Demerol 75 mg Atropin 0.4 mg preop Postop, transfer patient to ICU D5NSS 125 cc/h Transfuse three units PRBC Demerol 75 mg IM q. 4 hours as need for pain Ancef 500 mg q. 6 hrs $\times$ 3 doses CBC q. 4 hrs, Strict I & O
1/6	Transfer to floor; please get patient OOB and provide liquids at bedside Continue I & O CBC this a.m. then tomorrow a.m. D/C IV after 6:00 p.m. if stable
1/7	Discharge to home



**OPERATIVE REPORT—PATIENT 5****DATE:** 1/5**PREOPERATIVE DIAGNOSIS:** Possible adenocarcinoma of the endometrium**POSTOPERATIVE DIAGNOSIS:** Pending pathology report**OPERATION:** Laparoscopic assisted vaginal hysterectomy with pelvic cytology**ANESTHESIA:** General

**OPERATIVE PROCEDURE:** With the patient under satisfactory general anesthesia in the semilithotomy position, she was prepped and draped in the usual fashion for a laparoscopic and vaginal procedure. Through an infraumbilical incision, a Veress needle was inserted to establish a pneumoperitoneum using a high-flow insufflator with CO<sub>2</sub> gas, maintaining 15 mm of pressure. It was then followed by insertion of a 10-mm trocar into the infraumbilical incision, followed by the laparoscope with laparoscopic examination having been done with findings described above.

After transillumination of the abdomen noting vessels, an incision was made in the skin and 12-mm trocars and sleeves were inserted into the right and left lower quadrant.

After having inserted the 12-mm sleeves, an endogauge was inserted into Channel A and levels of the right and left tubo-ovarian ligaments and broad ligaments were measured. An endo-GIA was then inserted into Channel A, followed by endo-GIA of Channel B, amputating the attachments of the tubes and ovaries and the broad ligaments. The remaining attachments of the broad ligaments and the round ligaments were picked up with endo-GIA staplers on both sides.

A grasper was then inserted on Channel A, and the bladder reflection was picked up and elevated. It was then opened with endoshears, and using hydrodissection and ultrasonic scalpel, a bladder flap was created by sharp and blunt dissection with the scalpel. The dissection was carried down to the surface of the anterior lip of the cervix, which was noted to be smooth and free of adhesions. This was extended down past the cervicovaginal junction with identification of the tenaculum in the vagina. The grasper was then replaced on the right cornua and traction placed on the uterus, exposing the right cardinal ligaments, which was then placed on traction and using the scalpel probe, skeletonization of the uterine arteries with exposure of the arteries was done automatically.

The peritoneum was then dissected down past the uterosacral ligament insertion. After complete skeletonization of the uterine arteries was done, an endo TA-30 stapler was placed on the uterine arteries and the pedicle was cut off with the scalpel. There were no bleeding points noted.

The grasper was then removed and inserted into Channel B, and the left cornua of the uterus was picked up and placed on traction. The left cardinal ligaments and uterine arteries were then picked up and skeletonized, and complete exposure and dissection was done with visualization and identification of the arteries. The fragments of paravesical tissue were dissected off with the scalpel without traumatizing the bladder, which had previously been filled up with methylene blue and no spillage of the dye was noted during dissection of the uterus.

An endo TA-30 was then inserted in Channel A and linear staples were placed on the uterine arteries, on the left uterine artery and the cardinal ligament pedicles. The pedicle was then cut off with the scalpel. A second line of staples was then placed below the first line, taking care not to include the dome of the bladder without entering the vagina, and the pedicle cut off with the scalpel. There was a change in color of the uterus from pink to gray, indicating complete obliteration of blood supply.

The staple lines on the infundibular pelvis ligaments were then inspected and this was found to be adequate. At this time the laparoscopic procedure was temporarily stopped and attention was then paid to the vaginal portion of the procedure, releasing the pneumoperitoneum that had been established for the laparoscopy. The cervix was exposed and picked up on the anterior a posterior lip with Lahey clamps, and a circumscribing incision was made on the cervicovaginal junction down to the level of the



**OPERATIVE REPORT—PATIENT 5 (continued)**

paravesical fascia and dissected off by sharp and blunt dissection with entry into the anterior cul-de-sac atraumatically, and the posterior cul-de-sac entered likewise.

The insertions of the base of the uterosacral ligaments and cardinal ligaments were then picked up with Heaney clamps, cut and suture ligated with #0 Vicryl, followed by a second line of Heaney clamps on the base of the remaining portion of the cardinal ligaments that was attached to the uterus, amputating and freeing up the uterus. The pedicles were tied off with #0 Vicryl materials and the uterus pulled and delivered out of the abdominal cavity through the vagina. Angle sutures were then placed on the vaginal cuff using #0 Vicryl material, and the intervening incision was closed with vertical mattress sutures using #0 Vicryl material.

After having closed the vagina and establishing adequate hemostasis, attention was once again placed on the laparoscopic portion. The pneumoperitoneum was once again established using high-flow insufflator and CO<sub>2</sub> gas at 10-mm pressure, and inspection and irrigation of the vascular pedicles and the vaginal cuff was done, which revealed them to be dry. The pelvis was irrigated with copious amounts of warm saline solution. The procedure was then terminated. The sleeve and gripper in Channel A was removed, and was found to be dry. The fascia was closed using an endo close needle with a #0 Vicryl suture in interrupted fashion using three stitches. The channel B 12-mm sheath and trocar were removed, which were dry.

At this time, termination of the procedure was done. The laparoscope was removed and the CO<sub>2</sub> released gradually. All instruments were removed and remaining stab wounds were closed in the fascia with #0 Vicryl sutures, and subcutaneously with #4-0 Monocryl. Sterile dressings were applied.

The patient was transferred to the recovery room in a reactive state with stable vital signs. Estimated blood loss was 300 mL of whole blood, no replacement given.



## **PATHOLOGY REPORT—PATIENT 5**

**DATE:** 1/5

**SPECIMEN:** Uterus

**CLINICAL DATA:**

**PREOPERATIVE DIAGNOSIS:** Adenocarcinoma of endometrium

**POSTOPERATIVE DIAGNOSIS:** Same

**GROSS DESCRIPTION:** The specimen is labeled "Uterus." Submitted uterus with cervix attached. The specimen has previously been partially opened. It measures  $9 \times 5 \times 3$  cm and weighs 58 g. The body of the uterus appears to be symmetrical. On section, the endocervix and ectocervix appear essentially normal. The endocervical canal likewise appears normal. The endometrial cavity is involved by a polypoid tumor mass chiefly in the right cornual area and measuring 3 cm in greatest diameter. The tumor appears to superficially penetrate the myometrium. The specimen will be further sectioned following fixation.

A and B are sections of cervix; C, D, E, F, G, and H are full-thickness section of tumor; section I is a full-thickness section from grossly uninvolved tissue.

**MICROSCOPIC DESCRIPTION:**

**DIAGNOSIS:** Adenocarcinoma, intermediate grade, of endometrium. Chronic cervicitis

**COMMENT:** The tumor penetrates approximately 0.4 cm into a total myometrial thickness of 1.5 cm.



**OPERATIVE REPORT—PATIENT 5****DATE:** 1/5**PREOPERATIVE DIAGNOSIS:** Postoperative hemorrhage**POSTOPERATIVE DIAGNOSIS:** Bleeding from right epigastric artery**OPERATION:** Emergency diagnostic laparoscopy with repair of epigastric artery and blood transfusion**ANESTHESIA:** General**OPERATIVE INDICATIONS:** Estimated blood loss 1,500 to 2,000 mL of whole blood

**OPERATIVE PROCEDURE:** There was liquid and clotted blood in the abdominal cavity, approximately 1,500 to 2,000 mL, with blood coming from the puncture in the right lower quadrant, apparently from an accidental laceration of the right epigastric artery. The pedicles were inspected in the pelvis, and these were found to be dry.

With the patient under satisfactory general anesthesia, after having been transfused three units of packed RBCs, she was taken to the operating room and an emergency laparoscopic examination was carried out by opening the previous stab wounds with irrigation of the abdominal and pelvic cavity, evacuating approximately 1,500 to 2,000 mL of liquid and clotted blood.

Exposure of the pedicles of the infundibulopelvic ligament on both sides and the uterine arteries and the vaginal vault revealed them to be dry. There was no bleeding anywhere else in the pelvic cavity.

A puncture was found in the epigastric artery. Using an endoclosed needle through which a #0 Vicryl ligature was attached, the artery was repaired, stopping the bleeding point. This was verified by inspection with the laparoscope. After this was accomplished, the fascia was once again closed with endoclosed needle and #0 Vicryl suture on the right lower quadrant. The left lower quadrant was left open, and a Jackson-Pratt drain was inserted into the incision and placed in the pelvis for drainage.

The patient was then removed from the Trendelenburg position after ascertaining that vital signs were stable. The CO<sub>2</sub> was released gradually. All instruments were removed, and subcuticular closure of the stab wounds was done using #4-0 Monocryl sutures.

At the termination of surgery the patient's vital signs were stable. She, however, remained hypotensive with tachycardia with good urine output and was transfused an additional three units and transferred to the intensive care unit for postoperative care.

**LABORATORY REPORTS—PATIENT 5****HEMATOLOGY**

Specimen	Results				Normal Values
	1/5	1/5	1/5	1/7	
WBC	5.0	5.0	5.2	5.1	4.3–11.0
RBC	5.0	4.0 L	4.2 L	4.5	4.5–5.9
HGB	7.1 L	5.5 L	7.9 L	9.0 L	13.5–17.5
HCT	38 L	32 L	39 L	43	41–52
MCV	90	89	97	96	80–100
MCHC	44	46	48	50	31–57
PLT	160	165	170	300	150–400



**LABORATORY REPORTS—PATIENT 5 (continued)****HEMATOLOGY—PATIENT 5**

Specimen	Results				Normal Values
	1/5	1/5	1/5	1/7	
WBC	9.2	9.5	9.8	9.7	4.3–11.0
RBC	4.6	4.8	5.1	5.2	4.5–5.9
HGB	10.1 L	10.3 L	11.0 L	12.1 L	13.5–17.5
HCT	44	41	45	44	41–52
MCV	90	89	97	95	80–100
MCHC	44	46	48	50	31–57
PLT	160	165	170	300	150–400

Enter nine diagnosis codes and three procedure codes.

PDX	<input type="text"/>
DX2	<input type="text"/>
DX3	<input type="text"/>
DX4	<input type="text"/>
DX5	<input type="text"/>
DX6	<input type="text"/>
DX7	<input type="text"/>
DX8	<input type="text"/>
DX9	<input type="text"/>
PP1	<input type="text"/>
PR2	<input type="text"/>
PR3	<input type="text"/>



**INPATIENT RECORD — PATIENT 6****DISCHARGE SUMMARY****DATE OF ADMISSION:** 2/3**DATE OF DISCHARGE:** 2/4**DISCHARGE DIAGNOSIS:** Malignant ascites from metastatic adenocarcinoma of the colon

**COURSE IN HOSPITAL:** This 59-year-old white female patient was admitted for continuous peripheral infusion chemotherapy with 5-FU and Leucovoran for malignant ascites. The patient tolerated her chemotherapy very well. She had no complications throughout her hospital course, and she was discharged to be followed further as an outpatient by her oncologist.

**INSTRUCTIONS ON DISCHARGE:** Follow up in the office.

**HISTORY AND PHYSICAL EXAMINATION — PATIENT 6****ADMITTED:** 2/3/20XX**REASON FOR ADMISSION:** Chemotherapy

**HISTORY OF PRESENT ILLNESS:** The patient is a 59-year-old white female with carcinomatosis and malignant ascites from colon carcinoma, treatment in the past. She is admitted for continuous chemotherapy. The patient had a sigmoid colostomy 7 years ago, an anterior and posterior repair, and 6 weeks of radiation therapy completed five years ago with weekly chemotherapy consisting of 5FU and methotrexate for a year following radiation. Because of increasing abdominal girth, she was seen in June, and diagnosed with malignant ascites and carcinomatosis 3 months ago. At that time, she had an extensive evaluation including an upper gastrointestinal series, barium enema, CT scan, and ultrasound of the abdomen. She was told she had adhesions causing a partial obstruction and no colon cancer recurrence. No further surgery was pursued. For the past week, she has complained of frequent vomiting. Her weight has decreased another 6 pounds. She denies any abdominal pain. She has occasional diarrhea for which she takes Questran. She has had no blood in her colostomy drainage.

**PAST MEDICAL HISTORY:** No hypertension, myocardial infarction, diabetes, or peptic ulcer disease. Anterior and posterior repair, colectomy, cholecystectomy, appendectomy, hysterectomy with bilateral salpingo-oophorectomy for uterine fibroids.

**ALLERGIES:** None

**CHRONIC MEDICATIONS:** Pancrease three times a day; Questran as needed for diarrhea; Os-Cal 2 × per day, 250 mg

**FAMILY HISTORY:** Mother died at age 80. Father died of colon cancer at age 60.

**SOCIAL HISTORY:** She smoked a pack a day for 20 years but quit 5 years ago. She denies any alcohol intake. She works in the shipping department.

**REVIEW OF SYSTEMS:** Unremarkable

**PHYSICAL EXAMINATION:** An alert, white female in no acute distress



## HISTORY AND PHYSICAL EXAMINATION — PATIENT 6 (continued)

### GENERAL APPEARANCE:

**SKIN, HEAD, EYES, EARS, NOSE, THROAT:** Pupils are equal, reactive to light and accommodation. Extraocular movements are intact. Fundi are benign. Tympanic membranes are normal.

**MOUTH:** No oral lesions are seen.

**HEENT:** Within normal limits

**NECK:** Carotids are plus 2 with no bruits. Thyroid is normal. There is no adenopathy at present.

**LUNGS:** Clear

**HEART:** Regular sinus rhythm. No murmur, rub, or gallop.

**BREASTS:** A small, approximately 3 mm, cystic lesion the medial aspect of her left breast at around eight o'clock. It is freely movable and nontender. There are no axillary nodes.

**ABDOMEN:** Distended. Sigmoid colostomy present. Right lower quadrant induration is present. There is no abdominal tenderness. There is no hepatosplenomegaly. Bowel sounds are normal.

**PULSES:** Femorals are plus 2 with no bruits. There are good pedal pulses bilaterally.

**GENITALIA:** Normal

**RECTAL:** Deferred

**EXTREMITIES:** No edema

**NEUROLOGIC:** Deep tendon reflexes are plus 2 throughout.

**LABORATORY DATA:** Pending

### IMPRESSION:

Abdominal carcinomatosis retro-peritoneum and peritoneum from past colon cancer

Small left breast cyst

**PLAN:** The patient will be admitted for peripheral continuous chemotherapy.

## PROGRESS NOTES — PATIENT 6

DATE	NOTE
2/3	Patient tolerating chemo well. No complaints offered.
2/4	Patient well hydrated; nausea and vomiting under control. Will discharge.



**PHYSICIAN'S ORDERS—PATIENT 6**

DATE	ORDER
2/3	Chemotherapy protocol in D5W Compazine 5 mg now, then Q4H prn
2/4	Discontinue IV Discharge the patient.

Enter nine diagnosis codes and one procedure code.

PDX	<input type="text"/>
DX2	<input type="text"/>
DX3	<input type="text"/>
DX4	<input type="text"/>
DX5	<input type="text"/>
DX6	<input type="text"/>
DX7	<input type="text"/>
DX8	<input type="text"/>
DX9	<input type="text"/>
PP1	<input type="text"/>



## INPATIENT RECORD — PATIENT 7

### DISCHARGE SUMMARY

DATE OF ADMISSION: 9/8

DATE OF DISCHARGE: 9/10

### DISCHARGE DIAGNOSIS:

Acute pyelonephritis

Septicemia, resistant to ampicillin and penicillin

**ADMISSION HISTORY:** This 21-year-old female was admitted to the hospital with discomfort in the right side. Other than this she has been healthy. On the day of admission she developed severe discomfort in the lower back. She was having fever and chills for which she took an aspirin and then she came to the emergency department.

**COURSE IN HOSPITAL:** The patient was treated with intravenous antibiotics in the form of gentamicin and cefoxitin. She continued to improve on this regimen and became afebrile after about three days of treatment. Her physical examination remained essentially unchanged; however, there was marked improvement in the patient's general condition. The patient also had an onset of herpes simplex infection on her upper lip, for which she was given Zovirax ointment.

**INSTRUCTIONS ON DISCHARGE:** The patient was discharged home on ciprofloxacin 500 mg p.o. b.i.d. × 12 days. A repeat blood culture done just prior to discharge showed no growth at the end of 7 days. She is to be followed up in my office in about a week after discharge to have a repeat urine culture done. The patient was also given a prescription for Zyban to assist smoking cessation.

## HISTORY AND PHYSICAL EXAMINATION — PATIENT 7

**ADMITTED:** 9/8

**REASON FOR ADMISSION:** This was the first hospital admission for this 21-year-old white female, who experienced difficulty about 3 days prior to admission. This was in the form of discomfort in the right side of the lower back and also some dysuria. On the evening of admission, she started experiencing some fever and chills and took some aspirin. This did not help her and she came to the emergency department.

### HISTORY OF PRESENT ILLNESS:

**PAST MEDICAL HISTORY:** Remarkable only for "walking pneumonia" treated with erythromycin 3 months ago. She also suffered contusion of her right kidney after a fall from a horse about 4 years prior to admission.

**ALLERGIES:** None known

**CHRONIC MEDICATIONS:** None

**FAMILY HISTORY:** Remarkable for multiple members of the family having seasonal allergies

**SOCIAL HISTORY:** The patient lives with two friends and is employed by a saddle shop. She drinks about one drink a week and smokes a pack of cigarettes a day.

**REVIEW OF SYSTEMS:** The patient relates that there has been no weight gain or loss and that she was well functioning until three days ago when she developed lower back pain, primarily on the right side. She also relates that she has had dysuria for this same time period.



**HISTORY AND PHYSICAL EXAMINATION—PATIENT 7 (continued)**

**PHYSICAL EXAMINATION:** On admission, significant for temperature of 103 degrees; pulse 120 beats per minute, regular; blood pressure 120/70; respirations 16

**VITAL SIGNS:** P 120/min, regular; BP 120/70; Temp 103 degrees; R 16/min, regular

**GENERAL:** The patient is a well-developed female of her stated age. She appears lethargic but responsive. The patient appears septic.

**SKIN:** Warm to touch

**HEENT:** Pupils equal, react briskly to light. Mucous membranes of the eyes, nose, mouth, and oropharynx are normal.

**NECK:** Supple, trachea is central, the carotid pulses are symmetrical. There is no goiter.

**LUNGS:** Clear to auscultation and percussion

**BACK:** Positive pain to palpation and percussion right costovertebral angle

**HEART:** Peripheral pulses are symmetrical. The cardiac apex is not displaced. The heart sounds are normal and there are no added sounds or murmurs.

**ABDOMEN:** Soft, nontender, with no masses palpable. The bowel sounds are normal.

**GENITALIA:** Normal female

**RECTAL:** Deferred

**EXTREMITIES:** Femoral pulses normal, no edema

**NEUROLOGIC:** Grossly intact

**LABORATORY DATA:** WBC 15.9 with differential of 57 Segs; 33 Bands; 6 Lymphs; 4 Monos. Electrolytes were normal. BUN 11. Urine culture grew out *E. coli*, more than 100,000 colonies per mL. Blood culture was also positive for *E. coli*. This was sensitive to gentamicin and cefoxitin, as well as many other antibiotics. Urinalysis on admission revealed many WBCs and marked bacteriuria. Chest x-ray was unremarkable.

**IMPRESSION:** Admit for clinical features of acute pyelonephritis and septicemia.

**PLAN:** Hydrate and start IV antibiotics.

**PROGRESS NOTES—PATIENT 7**

DATE	NOTE
9/8	Patient admitted for evaluation of flank pain and fever. She also has a lesion on her lip. This appears to be herpes simplex. Will treat infection process with antibiotics following obtaining cultures. The patient's renal function will be monitored.
9/10	The patient's fever decreasing. Patient comfortable and tolerating antibiotics. Will continue IVs. The importance of stopping cigarette use was discussed with the patient. She is willing to quit and she will be given a prescription for Zyban at discharge.
9/11	Patient is afebrile today. Will discharge when able to obtain transportation.



**PHYSICIAN'S ORDERS—PATIENT 7**

DATE	ORDER
9/8	Admit to floor for evaluation of febrile illness
	Urinalysis
	CBC and SMA 16
	Urine culture and sensitivity
	Blood cultures x2
	Chest x-ray
	Pyelogram
	D5W 125 cc/h x3
	Strict input and output
	Zovirax ointment prn to lip
	Gentamicin 80 mg IV q. 8 H x3d
	Cefoxitin 1 g IV q. 8 H x3 days
9/9	D5W 100 cc/ph
9/10	Discharge patient when transportation is arranged
	Ciprofloxacin 500 mg p.o. b.i.d. x12 days
	Zyban 150 mg p.o. daily x3 days then b.i.d.
	Follow up in the office in 1 week.

**LABORATORY REPORTS—PATIENT 7****HEMATOLOGY**

DATE: 9/8

Specimen	Results	Normal Values
WBC	15.9 H	4.3–11.0
RBC	5.5	4.5–5.9
HGB	14.0	13.5–17.5
HCT	45	41–52
MCV	90	80–100
MCHC	41	31–57
PLT	251	150–450



**LABORATORY REPORTS—PATIENT 7 (continued)****CHEMISTRY—PATIENT 7**

DATE: 9/8

Specimen	Results	Normal Values
GLUC	100	70–110
BUN	11	8–25
CREAT	1.0	0.5–1.5
NA	143	136–146
K	4.0	3.5–5.5
CL	98	95–110
CO <sub>2</sub>	30	24–32
CA	9.0	8.4–10.5
PHOS	3.0	2.5–4.4
MG	2.0	1.6–3.0
T BILI	1.0	0.2–1.2
D BILI	0.3	0.0–0.5
PROTEIN	7.0	6.0–8.0
ALBUMIN	5.2	5.0–5.5
AST	25	0–40
ALT	40	30–65
GGT	60	15–85
LD		100–190
ALK PHOS		50–136
URIC ACID		2.2–7.7
CHOL		0–200
TRIG		10–160

**URINALYSIS—PATIENT 7**

DATE: 9/8

Test	Result	Ref Range
SP GRAVITY	1.03	1.005–1.035
PH	6	5–7
PROT	NEG	NEG
GLUC	NEG	NEG
KETONES	NEG	NEG
BILI	NEG	NEG
BLOOD	NEG	NEG
LEU EST	POS	NEG
NITRATES	POS	NEG
RED SUBS	NEG	NEG



**MICROBIOLOGY—PATIENT 7**

**DATE**      **TEST TYPE:** Culture and Sensitivity  
 9/8      **SOURCE:** Urine  
          **SITE:**  
          **GRAM STAIN RESULTS**  
          **CULTURE RESULTS:** *E. coli*, 100,000/ml  
          **SUSCEPTIBILITY:**

9/10      AMPICILLIN              R  
               CEFAZOLIN                S  
               CEFOTAXIME              S  
               CEFTRIAXONE            S  
               CEFUROXIME              S  
               CEPHALOTHIN            S  
               CIPROFLOXACIN        S  
               ERYTHROMYCIN        S  
               GENTAMICIN              S  
               OXACILLIN                S  
               PENICILLIN               R  
               PIPERACILLIN  
               TETRACYCLINE  
               TOBRAMYCIN  
               TRIMETH/SULF  
               VANCOMYCIN

S = SUSCEPTIBLE

R = RESISTANT

I = INTERMEDIATE

M = MODERATELY SUSCEP

**LABORATORY RESULTS—PATIENT 7**

**DATE:** 9/11

**URINE CULTURE:** No growth for 24 hours



**MICROBIOLOGY—PATIENT 7**

**DATE**      **TEST TYPE:**  
9/8      Culture and Sensitivity #1  
SOURCE: Blood  
SITE:  
GRAM STAIN RESULTS  
CULTURE RESULTS: *E. coli*  
SUSCEPTIBILITY:

9/10	AMPICILLIN	R
	CEFAZOLIN	S
	CEFOTAXIME	S
	CEFTRIAXONE	S
	CEFUROXIME	S
	CEPHALOTHIN	S
	CIPROFLOXACIN	S
	ERYTHROMYCIN	S
	GENTAMICIN	S
	OXACILLIN	S
	PENICILLIN	R
	PIPERACILLIN	
	TETRACYCLINE	
	TOBRAMYCIN	
	TRIMETH/SULF	
	VANCOMYCIN	

**S = SUSCEPTIBLE**

**R = RESISTANT**

**I = INTERMEDIATE**

**M = MODERATELY SUSCEP**



**MICROBIOLOGY—PATIENT 7**

**DATE**      **TEST TYPE:**

9/8      Culture and Sensitivity #2  
          SOURCE: Blood  
          SITE:  
          GRAM STAIN RESULTS  
          CULTURE RESULTS: *E. coli*  
          SUSCEPTIBILITY:

9/10      AMPICILLIN              R  
               CEFAZOLIN                S  
               CEFOTAXIME               S  
               CEFTRIAXONE               S  
               CEFUROXIME               S  
               CEPHALOTHIN               S  
               CIPROFLOXACIN               S  
               ERYTHROMYCIN               S  
               GENTAMICIN                S  
               OXACILLIN                  S  
               PENICILLIN                 R  
               PIPERACILLIN  
               TETRACYCLINE  
               TOBRAMYCIN  
               TRIMETH/SULF  
               VANCOMYCIN

S = SUSCEPTIBLE

R = RESISTANT

I = INTERMEDIATE

M = MODERATELY SUSCEP

**RADIOLOGY REPORT—PATIENT 7****DATE:** 9/8

**CHEST X-RAY:** The examination is of a recumbent AP view. Heart size is normal. The aorta is normal and lung fields are free of infiltration. There is no free air and the trachea is midline.

**DIAGNOSIS:** Normal chest x-ray



**RADIOLOGY REPORT—PATIENT 7****DATE:** 9/8**PYELOGRAM:** The urinary architecture is normal with no hydronephrosis.**DIAGNOSIS:** Normal pyelogram*Enter five diagnosis codes.*

PDX

DX2

DX3

DX4

DX5



## **SAME-DAY SURGERY SUMMARY—PATIENT 8**

**DATE OF ADMISSION:** 8/3

**DATE OF DISCHARGE:** 8/3

**DISCHARGE DIAGNOSIS:**

1. Sinus infection
2. Chronic serous otitis media, bilateral ears
3. Adenoid hypertrophy
4. Obstruction of Eustachian tubes

**PROCEDURES:**

1. Adenoidectomy
2. Bilateral myringotomy

**INSTRUCTIONS ON DISCHARGE:**

1. Contact my office for follow-up in 1 week
2. Take Augmentin 500 mg by mouth BID per day for 10 days
3. Darvocet 1 tablet every 4 hours for pain as needed

## **HISTORY AND PHYSICAL EXAMINATION—PATIENT 8**

**ADMITTED:** 8/3

**REASON FOR ADMISSION:** This is a 35-year-old patient who has recurrent sinusitis and chronic otitis media, bilateral ears. The patient also suffers from adenoidal obstruction of the eustachian tubes and nasopharynx. Treatment has consisted of antihistamines and decongestants as well as antibiotic therapy. This has been ineffective to control the inflammation. The patient has requested surgery for definitive treatment of the condition.

**PAST MEDICAL HISTORY:** Negative

**ALLERGIES:** None known

**CHRONIC MEDICATIONS:** None

**FAMILY HISTORY:** Noncontributory

**REVIEW OF SYSTEMS:** The patient has had repeated office visits over the past 3 years for sinusitis and otitis media. The patient has no other health problems.

**PHYSICAL EXAMINATION:** This is a Hispanic female in no acute distress. BP is 120/70. Temp. is 99.0 degrees. Pulse is 72. Respirations 12.

**HEENT:** Tympanic membranes are red otherwise normal.

**NECK:** Supple

**CHEST:** Clear to percussion and auscultation

**HEART:** Regular force, rate, and rhythm

**ABDOMINAL:** Normal, no masses

**EXTREMITIES:** No edema, normal

**IMPRESSION:** Sinus infection and chronic otitis media



**PROGRESS NOTES — PATIENT 8****DATE NOTE**

8/3 Patient is alert and oriented. Admitted to Same-Day Surgery for adenoidectomy and insertion of myringotomy tubes.

**PREOPERATIVE DIAGNOSIS:**

Chronic sinusitis

**POSTOPERATIVE DIAGNOSIS:**

1. Chronic sinusitis
2. Chronic Serous Otitis media, bilateral; Adenoid hypertrophy causing obstruction of the eustachian tube and nasopharynx

**OPERATION:**

Bilateral myringotomy with insertion of Shepard tympanostomy tubes; Adenoidectomy

**ANESTHESIA:** General

**COMPLICATIONS:** None

The patient tolerated the procedure well. No bleeding noted. Will discharge patient when transportation available.

**PHYSICIAN'S ORDERS — PATIENT 8****DATE ORDER**

8/3 Patient is admitted for adenoidectomy and myringotomy  
 Prep patient for surgery  
 NPO  
**PREOP ORDERS**  
 Morphine 10 mg IM upon admission  
 Atropine 0.4 mg IM upon admission  
**POSTOP ORDERS**  
 Ice collar  
 T & A Precautions  
 OOB ad lib  
 Darvocet-N tabs, one every 4 hours p.r.n. pain  
 Demerol 75 mg PO now  
 Discharge after 4:00 p.m. when stable



## OPERATIVE REPORT—PATIENT 8

**DATE:** 8/3

**PREOPERATIVE DIAGNOSIS:** Chronic sinusitis, chronic otitis media, bilateral, adenoid hypertrophy causing obstruction of the eustachian tubes and nasopharynx

**POSTOPERATIVE DIAGNOSIS:** Chronic sinusitis, chronic serous otitis media, bilateral, adenoid hypertrophy causing obstruction of the eustachian tubes and nasopharynx

**OPERATION:** Bilateral myringotomy with insertion of Shepard tympanostomy tubes; Adenoidectomy

**ANESTHESIA:** General

**OPERATIVE PROCEDURE:** Following the induction of general anesthesia, patient was prepped and draped in the usual sterile manner for the above mentioned procedures. The left ear was approached first.

The tympanic membrane was found to be injected, retracted, and full of a serous fluid. An anterior myringotomy incision was performed, and a Shepard tympanostomy tube was inserted in place.

Following this, an identical procedure was done on the right side, except on the right side the fluid was gray and viscous, and the tympanic membrane had already developed tympanosclerotic scar tissue throughout the tympanic membrane. An anterior myringotomy incision was performed, and a Shepard tympanostomy tube was inserted in place.

Following this, the patient was prepared and draped in the usual manner for adenoidectomy. With the soft palate retracted, an adenoid mass filling the entire nasopharynx was visualized. It was removed with adenoid curettes until the normal anatomical structures of the torus tubarius and the posterior choanae of the nasal passages could clearly be seen. The adenoid tissue trailed into the nose and into the area of the infundibulum of the middle meatus. Hemostasis was achieved.

The patient was awakened from anesthesia and taken to the recovery room in good condition.



**PATHOLOGY REPORT—PATIENT 8****DATE:** 8/3**SPECIMEN:** Adenoids**GROSS DESCRIPTION:** The specimen is submitted as adenoids. It consists of multiple fragments of adenoid tissue, the largest measuring 2.5 cm, 1.5 cm, 1.0 cm. These fragments are similar to tonsillar tissues.**MICROSCOPIC DESCRIPTION:** There are no significant pathologic lesions seen grossly.**DIAGNOSIS:** Adenoids*Enter four diagnosis codes and two procedure codes.*

PDX	<input type="text"/>
DX2	<input type="text"/>
DX3	<input type="text"/>
DX4	<input type="text"/>
PP1	<input type="text"/>
PR2	<input type="text"/>



## EMERGENCY DEPARTMENT RECORD — PATIENT 9

**DATE OF ADMISSION:** 4/1

**DATE OF DISCHARGE:** 4/1

**HISTORY (PROBLEM FOCUSED):**

**HISTORY OF PRESENT ILLNESS:** This 16-year-old African-American female underwent piercing of her ears. The patient was removing her sweater when she accidentally pulled the earring through her left ear lobe.

**PAST MEDICAL HISTORY:** The patient has a history of childhood asthma that has not occurred for several years.

**ALLERGIES:** Penicillin

**CHRONIC MEDICATIONS:** None

**REVIEW OF SYSTEMS:** The patient has been well.

**PHYSICAL EXAMINATION (PROBLEM FOCUSED):**

**GENERAL APPEARANCE:** This is a well-nourished 16-year-old black female in no apparent distress. HEENT normal except for 2 cm laceration of left earlobe. Neck veins flat at 40-degree angle. No nodes felt in the neck, carotids, or groin. Carotid pulsations are normal. No bruits heard in the neck. Chest clear on percussion and auscultation. Heart is not enlarged. No thrills or murmurs. Rhythm is regular. BP 130/80. Liver and spleen not palpable. No masses felt in the abdomen. No ascites noted. No edema of the extremities. Pulses in the feet are good.

**IMPRESSION:** Laceration of left ear lobe

**PLAN:** Suture laceration of left ear lobe

**TREATMENT:** Following infiltration of the areas with Xylocaine, the laceration was closed with 2-0 Vicryl. Two suture kits were used.

**DISCHARGE DIAGNOSIS:** Ear lobe laceration of left ear

**INSTRUCTIONS ON DISCHARGE:** Demerol by mouth 50 mg every 6 hours as needed for pain. Biaxin 500 mg PO b.i.d. for 10 days. Follow up with surgical clinic in 7 days.

*Enter one diagnosis code and two procedure codes.*

**PDX**

**PP1**

**PR2**



**INTERVENTIONAL RADIOLOGY REPORT—PATIENT 10****EXAMINATION:** Ultrasound guided liver biopsy**HISTORY:** Carcinoma of the lower right lobe of the lung**PROCEDURE:** Limited real-time transabdominal ultrasound of the liver was performed. There is a 3.5 × 2.9-cm mass in the lateral segment of the left lobe of the liver. This mass is hypoechogenic with increased blood flow. Following informed consent the patient was prepped and draped in the usual manner. Using ultrasound guidance, percutaneous fine-needle aspiration biopsy of the left lobe of the liver mass was performed. The patient tolerated the procedure well.**IMPRESSION:** Hypoechogenic mass in the left lobe of the liver that was successfully biopsied with ultrasound guidance**PATHOLOGY REPORT:** Metastatic lung carcinoma*Enter two diagnosis codes and two procedure codes.*

PDX

DX2

PP1

PR2



## INPATIENT RECORD—PATIENT 11

### DISCHARGE SUMMARY

**DATE OF ADMISSION:** 11/30

**DATE OF DISCHARGE:** 12/4

**DISCHARGE DIAGNOSIS:** Fractured neck of right femur

**ADMISSION HISTORY:** The patient is a 78-year-old male who fell on the day of admission and sustained a fracture of the neck of his right femur. The patient was admitted for a medical evaluation prior to surgical intervention.

**COURSE IN HOSPITAL:** Medical evaluation was obtained on admission. Patient was taken to the operating room, where an open reduction and internal fixation of the fracture of the right femur was performed. Postoperative course was unremarkable except for urinary retention, which necessitated the placement of an indwelling Foley catheter. He was discharged with the catheter in place. The patient was ambulatory, nonweight bearing with a walker at the time of discharge.

**INSTRUCTIONS ON DISCHARGE:** The patient is instructed to follow up with my office in 3 days to remove staples and to begin outpatient physical therapy tomorrow. Home health services will follow this patient. Pain medications: Darvocet N 100, one tablet every 4 hours as needed for pain.

## HISTORY AND PHYSICAL EXAMINATION—PATIENT 11

**ADMITTED:** 11/30

**REASON FOR ADMISSION:** Right hip pain following a fall

**HISTORY OF PRESENT ILLNESS:** The patient is a 78-year-old male who fell on the day of admission and sustained a fracture of the neck of his right femur. The patient was admitted for a medical evaluation prior to surgical intervention.

**PAST MEDICAL HISTORY:** The patient has had multiple medical problems including gastric ulcer, congestive heart failure, diverticulosis, degenerative joint disease, arteriosclerotic coronary artery disease, and mitral regurgitation.

**ALLERGIES:** None

**CHRONIC MEDICATIONS:** Lanoxin 0.125 mg, Mon. Wed., and Fri., Lasix 40 mg q. a.m., Lasix 40 mg q. p.m., Colace 200 mg q. a.m., Metamucil one teaspoon b.i.d., Zestril 10 mg every day, Zantac 150 mg PO b.i.d., nitroglycerin 0.4 mg. PRN for chest pain, Celebrex 100 mg PO b.i.d. for degenerative joint disease.

**SOCIAL HISTORY:** The patient is widowed with 3 children and 7 grandchildren. The patient is a nondrinker and nonsmoker.

**REVIEW OF SYSTEMS:** The patient has been in usual health until the day prior to admission when he fell. There has been no change in bladder and bowel functioning. Cognitively, he has experienced some confusion on and off lately.

**PHYSICAL EXAMINATION:** BP is 170/90, pulse 80 and regular. The patient is an elderly, thin, somewhat deaf male. His pupils are small and reactive to light. The pharynx is benign. The jugular pulse is distended but filled from above. He has no supraclavicular adenopathy. His chest is clear. On palpation the pericardium was located in his anterior axillary line with a palpable thrill. On auscultation he had a harsh grade III/VI apical systolic murmur that radiated to the apex and faintly to the lower left sternal edge. He had a soft diastolic flow murmur. His abdomen was somewhat tense without organomegaly. He had minimal peripheral edema.



**CONSULTATION—PATIENT 11****DATE:** 11/30**CHIEF COMPLAINT:** Pain in hip

**REVIEW OF SYSTEMS:** The patient has been in usual health until the day prior to admission when he fell. The patient is experiencing a little more shortness of breath than usual. The patient is unsure if he felt dizzy before falling.

**PHYSICAL EXAMINATION:** This is an elderly, moderately nourished white male. HEENT reveals nothing abnormal. There is no adenopathy. His chest is clear with loud grade III/VI pansystolic murmur. Examination of the abdomen reveals no masses or tenderness. He had minimal peripheral edema with one leg appearing shorter than the other. Distal circulation and sensation are normal.

**IMPRESSION:**

- History of gastric ulcer
- Congestive heart failure
- Diverticulosis
- Degenerative joint disease
- Arteriosclerotic coronary artery disease
- Mitral regurgitation

**PLAN:** D/C NSAIDs for now in light of GI history. The patient is cleared for surgery.



**PROGRESS NOTES + PATIENT 11**

DATE	NOTE
11/30	Patient admitted for medical evaluation prior to ORIF. The patient is somewhat confused about the events surrounding the fall. At present he offers no other complaint. The patient currently has Bucks traction in place. If cleared for surgery, patient is scheduled for tomorrow at 1:00 p.m.
12/1	The patient is resting quietly. Medication adequate to alleviate pain in extremity.
6:30 a.m.	Operative consent signed following obtaining informed consent for surgery. All questions from patient and family answered. <b>PREOP DX:</b> Fracture of right femur
6:30 p.m.	<b>POSTOP DX:</b> Same <b>OPERATION:</b> Open reduction, internal fixation, femoral neck fracture, right hip <b>ANESTHESIA:</b> Spinal and general <b>COMPLICATIONS:</b> None Patient sleeping. Dressings intact, hemovac in place.
8:00 p.m.	House Physician called to see patient due to inability to void. The patient appears to have postop urinary retention. Will place Foley catheter.
12/2	Events of last night noted. Will request that patient get OOB and begin physical therapy. Hemovac in place draining small amount. Patient not complaining of pain. H&H looks good. Lytes fine.
12/3	Patient has been ambulating well. Patient minimally confused due to senile dementia. Neurovascular status good. Appetite good. Dressing intact, incision healing well, no redness or inflammation.
12/4	Patient up with assistance and ambulating using walker. Incision healing well. Discharge with indwelling Foley. Home health services to assist patient following discharge. Ready for discharge today.



## PHYSICIAN'S ORDERS—PATIENT 11

DATE	ORDER
11/30	<p>Admit to floor</p> <p>NPO after midnight</p> <p>Continue present meds:</p> <p>Lanoxin 0.125 mg, q.d.</p> <p>Lasix 40 mg q. a.m. and p.m.</p> <p>Colace 200 mg q. a.m.</p> <p>Metamucil one teaspoon b.i.d.</p> <p>Zantac 150 mg po b.i.d.</p> <p>Celebrex 100 mg po b.i.d. for DJD</p> <p>Prep for hip surgery</p> <p>Medical Consult for surgical clearance</p> <p>4 lb Bucks traction to continue</p> <p>Demerol 50 mg q. 3 to 4 hours</p> <p>Darvocet N 100 q. 3 to 4 hours</p> <p>Cross match 3 units of blood</p> <p>Low sodium, low-fat diet</p> <p>Dig level in a.m.</p> <p>H&amp;H and electrolytes</p>
12/1	<p>Preop Meds</p> <p>Hold Dig this a.m.</p> <p>Ancef 1 g on call to OR</p> <p>Postop Meds</p> <p>Run D5W 1,000 cc q. 12 hrs</p> <p>Demerol 500 mg q. 3 to 4 hrs p.r.n. pain</p> <p>Darvocet N 100 q. 3 to 4 hours</p> <p>Hct and Hgb at 9:00 p.m. and in a.m.</p> <p>Electrolytes in a.m.</p> <p>Ancef 500 mg IV q. 6 hrs × 4 doses</p> <p>X-ray hip in a.m.</p> <p>Ice on hip</p> <p>Up in chair following x-ray</p> <p>Begin physical therapy tomorrow</p> <p>Insert Foley catheter</p>
12/2	Consult home health services for discharge needs. Continue pain meds. Get patient OOB for ambulation with walker.
12/3	D/C IV
12/4	D/C patient. Home health services to follow.



## OPERATIVE REPORT—PATIENT 11

**DATE:** 12/1

**PREOPERATIVE DIAGNOSIS:** Fracture of right femoral neck

**POSTOPERATIVE DIAGNOSIS:** Same

**OPERATION:** Open reduction and internal fixation of fracture right femoral neck

**ANESTHESIA:** Spinal and general

**OPERATIVE INDICATIONS:**

**OPERATIVE PROCEDURE:** The patient was given Ancef 1 g IV 30 minutes prior to the procedure for endocarditis/surgical prophylaxis. The patient was administered a spinal anesthesia and then placed on the fracture table in traction. X-rays revealed satisfactory position and alignment of the fracture site. The right hip was prepped with Betadine scrub and Betadine solution and draped in a sterile fashion. A straight incision was made over the lateral aspect of the right hip and carried through the subcutaneous tissue, then tensor fascia lata and vastus lateralis muscles so that the fracture could be reduced and fixation devices utilized. The lateral shaft of the femur was exposed subperiosteally. A guide wire was then placed into the neck and head of the femur and x-rays revealed a slightly inferior position. The new guide wire was obtained in satisfactory position. The lateral shaft, neck, and head of the femur were then drilled to a depth of 85 mm with the drill. An 85-mm, 140-degree and 5-degree compression nail were then inserted over which a 140-degree angle 4-hole side plate was then inserted. A compression screw was then applied after the key was inserted. The side plate was then fixed to the shaft of the femur with four screws. X-rays revealed satisfactory position and alignment of the neck fracture fragments and the fixation device. The wound was then well irrigated. A large hemovac drain was inserted and brought out through a separate stab wound incision. The wound was closed with a continuous #000 Vicryl suture in the vastus lateralis and tensor fascia lata layers. The subcutaneous tissue was closed with interrupted #000 Vicryl sutures and the skin was closed with staples. A compression dressing was applied. The patient tolerated the procedure well and there were no operative complications. Patient was returned to the recovery room in satisfactory condition.



**LABORATORY REPORTS—PATIENT 11****HEMATOLOGY****DATE:** 11/30

Specimen	Results	Normal Values
WBC	9.9	4.3–11.0
RBC	5.0	4.5–5.9
HGB	14.0	13.5–17.5
HCT	45	41–52
MCV	89	80–100
MCHC	33.9	31–57
PLT	Adequate	150–450

**HEMATOLOGY—PATIENT 11****DATE:** 12/1

Specimen	Results	Normal Values
WBC	7.7	4.3–11.0
RBC	4.4 L	4.5–5.9
HGB	13.2 L	13.5–17.5
HCT	41	41–52
MCV	89	80–100
MCHC	33.9	31–57
PLT	Adequate	150–450

**HEMATOLOGY—PATIENT 11****DATE:** 12/1

Specimen	Results	Normal Values
WBC	8.0	4.3–11.0
RBC	4.5	4.5–5.9
HGB	13.7	13.5–17.5
HCT	42	41–52
MCV	89	80–100
MCHC	33.9	31–57
PLT	Adequate	150–450



**LABORATORY REPORTS—PATIENT 11 (continued)****CHEMISTRY—PATIENT 11****DATE:** 11/30

Specimen	Results	Normal Values
GLUC	97	70–110
BUN	12	8–25
CREAT	1.0	0.5–1.5
NA	138	136–146
K	4.0	3.5–5.5
CL	109	95–110
CO <sub>2</sub>	33 H	24–32
CA	9.1	8.4–10.5
PHOS	3.0	2.5–4.4
MG	2.0	1.6–3.0
T BILI	1.0	0.2–1.2
D BILI	0.4	0.0–0.5
PROTEIN	7.0	6.0–8.0
ALBUMIN	5.4	5.0–5.5
AST	36	0–40
ALT	44	30–65
GCT	70	15–85
LD	110	100–190
ALK PHOS	114	50–136
URIC ACID	6.0	2.2–7.7
CHOL	165	0–200
TRIG	140	10–160



**LABORATORY REPORTS—PATIENT 11 (continued)****CHEMISTRY—PATIENT 11****DATE:** 12/1

Specimen	Results	Normal Values
GLUC	97	70–110
BUN	12	8–25
CREAT	1.0	0.5–1.5
NA	134 L	136–146
K	5.6 H	3.5–5.5
CL	109	95–110
CO <sub>2</sub>	33 H	24–32
CA	9.1	8.4–10.5
PHOS	3.0	2.5–4.4
MG	2.0	1.6–3.0
T BILI	1.0	0.2–1.2
D BILI	0.4	0.0–0.5
PROTEIN	7.0	6.0–8.0
ALBUMIN	5.4	5.0–5.5
AST	36	0–40
ALT	44	30–65
GGT	70	15–85
LD	110	100–190
ALK PHOS	114	50–136
URIC ACID	6.0	2.2–7.7
CHOL	165	0–200
TRIG	140	10–160

**RADIOLOGY REPORT—PATIENT 11****DATE:** 11/30

**RIGHT HIP AND FEMUR:** A displaced femoral neck fracture is noted with a mild degree of varus angulation. The adjacent skeletal structures are normal. The right femur is intact beyond the neck. There is vascular calcification.

**CHEST, SUPINE:** There is no gross evidence of acute inflammatory disease or congestive heart failure.

**IMPRESSION:** Femur and hip; slightly angulated, femoral neck fracture; chest; no acute disease.



## RADIOLOGY REPORT—PATIENT 11

**DATE:** 12/2

**DIAGNOSIS: RIGHT HIP AND FEMUR.** The displaced, femoral neck fracture has been surgically corrected. The adjacent skeletal structures are normal.

**IMPRESSION:** The fracture is maintained with an orthopedic device.

Enter ten diagnosis codes and two procedure codes.

PDX	<input type="text"/>
DX2	<input type="text"/>
DX3	<input type="text"/>
DX4	<input type="text"/>
DX5	<input type="text"/>
DX6	<input type="text"/>
DX7	<input type="text"/>
DX8	<input type="text"/>
DX9	<input type="text"/>
DX10	<input type="text"/>
PP1	<input type="text"/>
PR2	<input type="text"/>



**SAME-DAY SURGERY RECORD — PATIENT 12****DATE OF ADMISSION:** 1/29**DATE OF DISCHARGE:** 1/29**DISCHARGE DIAGNOSIS:** Torn lateral meniscus of the right knee; torn anterior cruciate ligament of the right knee**ADMISSION HISTORY:** The patient is a 17-year-old male, who approximately 1 year ago underwent a cruciate ligament reconstruction. He has had several reinjuries and for this reason was taken for arthroscopic evaluation and treatment.**COURSE IN HOSPITAL:** The patient was taken to the OR where a resection of tear of the lateral meniscus posterior horn and reconstruction of the anterior cruciate ligament using patellar tendon graft was performed. The patient was then discharged and asked to return in 1 week.**INSTRUCTIONS ON DISCHARGE:**

Levaquin 500 mg by mouth, 1 per day

Tylox 1–2 capsules as needed for pain

Follow-up appointment in 1 week

**HISTORY AND PHYSICAL EXAMINATION — PATIENT 12****DATE:** 1/29**HISTORY OF PRESENT ILLNESS:** This is a 17-year-old male active in several sports. He then reinjured the knee several times this year while playing soccer.**PAST MEDICAL HISTORY:** The patient has no other health problems.**ALLERGIES:** None known**CHRONIC MEDICATIONS:** None**FAMILY HISTORY:** Noncontributory**PHYSICAL EXAMINATION:** Reveals a well-developed, well-nourished white male in no apparent distress. HEENT reveals nothing abnormal. Chest was clear to auscultation and percussion. Heart sounds were normal with no murmurs. Examination of the abdomen reveals no masses or tenderness. Examination of the genitals was not done. Examination of the extremities reveals a scar on the left knee with swelling of the joint. Distal sensation and circulation were normal.**IMPRESSION:** Torn lateral meniscus of the right knee; torn anterior cruciate ligament of the right knee.**PLAN:**

1. Resection of tear of the lateral meniscus posterior horn
2. Reconstruction of the anterior cruciate ligament using patellar tendon graft



## PROGRESS NOTES – PATIENT 12

DATE	NOTE
1/29	<p>Admit to Same-Day Surgery unit</p> <p>Prep for surgery</p> <p>Betadine scrub right leg</p> <p>Demerol 100 mg IM 1 hr preop</p> <p>Versed 5 mg IM 1 hr preop</p> <p>Postop Orders:</p> <p>Demerol 75 mg. PRN pain 1 dose</p> <p>Tylox 1 to 2 PO q. 4 hr</p> <p>Levaquin 500 mg PO postop</p> <p>D/C when stable as per discharge criteria</p>

## PHYSICIAN'S ORDERS – PATIENT 12

DATE	ORDER
1/29	<p>Patient admitted for surgical and diagnostic arthroscopy</p> <p>Brief OP Note</p>

**PREOP DX:** Torn lateral meniscus of the right knee; torn anterior cruciate ligament of the right knee

**POSTOP DX:** Torn lateral meniscus of the right knee; torn anterior cruciate ligament of the right knee

### OPERATION:

1. Resection of tear of the lateral meniscus posterior horn
2. Reconstruction of the anterior cruciate ligament using patellar tendon graft

### ANES: General

Good circulation and sensation. Will encourage patient to ambulate with splint and crutches.

Discharge when stable. Follow up in one week with my office.

### DISCHARGE MEDICATIONS:

1. Levaquin 500 mg by mouth, one per day
2. Tylox 1–2 capsules as needed for pain



**OPERATIVE REPORT—PATIENT 12**

**PREOPERATIVE DIAGNOSIS:** Torn lateral meniscus of the right knee; torn anterior cruciate ligament of the right knee

**POSTOPERATIVE DIAGNOSIS:** Torn lateral meniscus of the right knee; torn anterior cruciate ligament of the right knee

**OPERATION:**

1. Resection of tear of the lateral meniscus posterior horn
2. Reconstruction of the anterior cruciate ligament using patellar tendon graft

**ANESTHESIA:** General

**CLINICAL HISTORY:** This is a 17-year-old male who sustained an injury to his right knee in May during a surfing accident. He was treated conservatively before this. But because of instability and pain, he wished to have the following procedure done.

Tourniquet was used for one hour, 50 minutes

**PROCEDURE DESCRIPTION:** The patient was placed under general anesthesia. Airway was maintained by Dr. Spears, as the right lower limb was manipulated and found to have a positive Lachman, a positive drawer test, and a trace pivot shift. The left knee was also examined and found to have the same findings.

The knee was prepped with a gel prep, draped with the limb free. Tourniquet was applied to the thigh but not elevated to begin with. The procedure done first was a diagnostic arthroscopy, and, during this, we found that the anterior cruciate ligament was torn away from the wall lateral femoral condyle. It was quite lax as well. Attention was turned to the lateral compartment where the initial look at the lateral cartilage showed that it was fine. But on probing underneath the surface of the posterior horn, there was a partial tear but without any instability. The tear extended through the cartilage 50% to 75%. Because of this, this portion was resected back to normal cartilage, removing the torn segment. This was in an area that was not vascular.

Attention was then turned to the anterior cruciate ligament which was resected. Using a shaver, all the soft tissue was removed from around and up into the notch. A bur was used to enlarge the notch superiorly, into the lateral side and into the depth of the notch to the over-the-top position that was clearly delineated.

The first part of the arthroscopy was terminated. The tourniquet was elevated. Then an incision was made from the mid patella to the tibial tubercle, with dissection carried down to the patellar tendon.

The middle third of the patellar tendon was harvested with bone graft from tibia and fibula which was sized to a 10-rom tunnel size. Two threads were placed in the femoral portion and one in the tibial portion, and the femoral portion marked at the interface between the bone and the tendon. The small saw was used to cut the bone graft from both the tibia and the patella. The patellar defect was filled with bone graft and closed. The guide for the tibial tunnel was then put in place, measuring about 55 degrees. This was placed just in front of the posterior tibial tendon and in the mid portion of the slope of the tibial spine. The guide wire was put in place, found to be satisfactory, and a 10-rom channel was reamed. The over-the-top positioning was put into place with a guidewire. This was in the eleven o'clock for the right knee. The bulldog cannulated reamer was used, and a footprint was established. Probing revealed there to be a millimeter of bone posterior to this. This was reamed up to 30 mm in size for the graft plus 5 rom. The guidewire was removed. The eccentric guide was put into place, and a notch made. Then the two-pin passer was passed through the eccentric guide, and then the guide was removed. The exit of the two-pin passer was in a proper place on the anterolateral thigh. A guidewire was used to put in place in the two-pin passer, and the graft was passed up into the channel and seemed to fit well. A biodegradable screw was used, but the first one did not cut properly and had to be replaced after tapping the spot for the screw.



**OPERATIVE REPORT—PATIENT 12 (continued)**

A second biodegradable screw was put up in place. This was approximately 25 mm × 9 mm. The position and tightness were excellent, and drawer test at this point was trace, as was the Lachman. There was no impingement of the graft with extension, and no change in the length. The screw for the tibia was put into place over a guidewire, and this was an 8 × 25 tibial screw. This again was quite tight, and the Lachman test was just a trace positive.

The joint and the wound were irrigated with arthroscopic fluid, and subcutaneous tissues were closed with 2-0 Vicryl. The skin was closed with 4-0 nylon, as was each of the ports. The incision plus the ports were all injected with 0.25% Marcaine with epinephrine. The patient was given 30 mg of Toradol. Dressing was applied of Xeroform gauze, 4 × 4s, Kerlix, Ace wrap, and then the patient's brace which was a Bledsoe brace.

He tolerated the procedure well with a tourniquet time of 1 hour 50 minutes. Blood loss was nil. He will be sent home on Lortab. He will return to the office on Friday for a dressing change. He will be contacted tomorrow.

**PHYSICIAN'S ORDERS—PATIENT 12**

DATE	ORDER
4/1/20XX	Attending MD: Admit to same-day surgery Betadine scrub ×3 Preop May take own meds Lasix 20 mg now
4/1/20XX	Anesthesia Note: Continue NPO Demerol 50 mg IM 1½ hr Preop Vistaril 50 mg IM 1½ hr Preop Atropine 0.4 mg IM 1½ hr Preop
4/1/20XX	Attending MD: Vital signs q. 15 min until stable Regular diet Percocet 2.5 mg. q. 4 hrs p.r.n. for pain Iron supplement q.d. for anemia Discharge to home when stable



**LABORATORY REPORTS—PATIENT 12****HEMATOLOGY**

DATE: 3/31

Specimen	Results	Normal Values
WBC	7.2	4.3–11.0
RBC	4.0 L	4.5–5.9
HGB	11.0 L	13.5–17.5
HCT	38.0 L	41–52
MCV	94	80–100
MCHC	40	31–57
PLT	300	150–400

*Enter two diagnosis codes and two procedure codes.*

PDX

DX2

PP1

PR2



## Emergency Department Evaluation and Management (E/M) Mapping Scenario for Emergency Department Case 13

Code the procedures that are done in the emergency department as well as the E/M code derived from the E/M mapping scenario.

### Point Value Key

Level 1 = 1-20

Level 2 = 21-35

Level 3 = 36-47

Level 4 = 48-60

Level 5 = > 61

Critical Care > 61 with constant physician attendance

### CPT Codes

Level 1 99281 99281-25 with procedure/laboratory/radiology

Level 2 99282 99282-25 with procedure/laboratory/radiology

Level 3 99283 99283-25 with procedure/laboratory/radiology

Level 4 99284 99284-25 with procedure/laboratory/radiology

Level 5 99285 99285-25 with procedure/laboratory/radiology

Emergency Department Acuity Points					
	5	10	15	20	25
Meds Given	1-2	3-5	6-7	8-9	>10
Extent of Hx	Brief	PF	EPF	Detail	Comprehensive
Extent of Examination	Brief	PF	EPF	Detail	Comprehensive
Number of Tests Ordered	0-1	2-3	4-5	6-7	>8
Supplies Used	1	2-3	4-5	6-7	>8



**EMERGENCY DEPARTMENT CASE — PATIENT 13****HISTORY AND PHYSICAL****CHIEF COMPLAINT:** Abdominal pain and vomiting**HISTORY (Comprehensive History)****HISTORY OF PRESENT ILLNESS:**

This patient was seen in our office by this examiner two days ago. At that time the patient presented with vomiting. The patient had eaten at a restaurant that night and had vomiting afterward and then some severe pain. When seen in the office, he exhibited some right upper quadrant tenderness. Arrangements were made for gallbladder ultrasound, which was performed and negative and he was given Reglan 10 mg a.c. and Zantac 150 mg b.i.d. However his mother brought him to the office this afternoon with the patient having severe abdominal pain and vomiting. He reports having had a bowel movement the day prior to examination and no particular diarrhea but severe vomiting.

**PAST MEDICAL HISTORY:****ILLNESSES:**

1. He was seen last March with asthmatic bronchitis treated with Humibid LA and Proventil MOI.
2. In December he was in with bronchitis treated with Proventil, Humibid.
3. The patient was also seen in November of 2003, with symptoms attributable to gastroesophageal reflux disease and he was on Protonix at that time at b.i.d. He was advised to elevate the head of the bed, avoid eating before bed and avoid fatty foods plus any caffeine, cola, or chocolate.

**FAMILY HISTORY:** Reveals that his mother has a history of migraines and depression.**SOCIAL HISTORY:** The patient is out of school for the summer during construction. He does not smoke or use alcohol.**PHYSICAL EXAMINATION (Extended Problem-Focused)****GENERAL:** Reveals an anxious well-developed, well-nourished, male who is nauseated and has several episodes of vomiting during the interview.**HEENT:** Not remarkable**NECK:** Supple**LUNGS:** Clear to auscultation and percussion**HEART:** Regular rate and rhythm with no murmurs heard or thrills palpated**ABDOMEN:** Soft with some epigastric and right upper quadrant tenderness. No masses are palpable. The bowel sounds are hyperactive.**EXTREMITIES:** Not remarkable**IMPRESSION:**

1. Abdominal pain of determined etiology
2. Anxiety secondary to #1
3. Nausea, vomiting, and dehydration



**EMERGENCY DEPARTMENT CASE—PATIENT 13 (continued)**

**EMERGENCY DEPARTMENT COURSE AND TREATMENT:** This 18-year-old male was referred from my office with abdominal pain of undetermined etiology. Treatment was initiated with IV fluids, Morphine, Reglan, and Protonix. The laboratory workup consisting of CBC, comprehensive metabolic panel, amylase and lipase and urinalysis was initiated and was remarkable only for very low-grade leukocytosis with a predominance of neutrophils and the remainder of the lab workup was normal. An imaging workup of the abdominal pain revealed mild thickening of the terminal ileum. This prompted a small bowel follow through which was notable only for reflux. The patient's symptoms improved markedly with IV fluids and the aforementioned pharmacological treatment regimen. He was discharged to home in good condition with no specific medications. He is tolerating a regular diet.

**FOLLOW-UP:** The patient is to follow up by calling the office for an appointment. He is to call for any recurrent abdominal pain or any other questions or concerns. Activity as tolerated.

**PHYSICIAN ORDER FORM—PATIENT 13**

DATE	ORDER
8/19	
12 p.m.	Clear liquid diet D 5½ Ns at 100 Reglan 10 mg IV q 40 prn vomiting Protonix 40 mg po BID CBC, U/A, CMP Serum #5 amylase Lipase #7 Abd CT attn: pancreas and appendix today #3 #4
3:30 p.m.	Morphine sulfate 15 mg prn pain Patient to UGI/SBFT X-ray done tomorrow Send report of UGI/SBFT x-ray to doctor
8:45 p.m.	Discharge to home.



**LABORATORY REPORT—PATIENT 13****HEMATOLOGY**

DATE: 8/19

Specimen	Results	Normal Values
WBC	11.5 H	4.0–10.9
RBC	14.85	14.0–15.65
HEMOGLOBIN	14.6	12.0–16.2
HCT	41.6	37.0–42
MCV	85.8	78–102
MCHC	35.0	31.0–35.0
RDW	12.5	11.5–14.5
PLATELET	1,211	1,150–1,400
NEUT %	186.5 H	140.0–170.0
LYMPH %	118 L	115.0–140.0
MONO %	1.3 L	1.5–12
EOSIN %	0.2	0.0–7.0
BASO %	0.2	0.0–2.0

**CHEMISTRY—PATIENT 13**

DATE: 8/19

Specimen	Results	Normal Values
SODIUM	141	135–145
POTASSIUM	13.9	3.5–15.0
CHLORIDE	100	98–108
CARBON DIOXIDE	30.0	20.0–31.0
ANION GAP	14.0	9.0–18.0
GLUCOSE	113 H	70–110
BUN	12	7–21
CREATININE	1.0	0.5–1.4
AST	22	5–35
PROTEIN TOTAL	8.0	6.3–8.2
ALBUMIN	4.7	3.5–4.8
CALCIUM	9.1	8.9–10.4



**LABORATORY REPORT—PATIENT 13 (continued)****CHEMISTRY—LIVER STUDIES—PATIENT 13**

DATE: 8/19

Specimen	Results	Normal Values
ALT (SGPT)	19	7-56
ALK PHOS	92	38-126
BILI, Total	1.3	0.2-1.3
BILI, Direct	0.1	0.0-0.4

**CHEMISTRY—PANCREATIC ENZYMES—PATIENT 13**

DATE: 8/19

Specimen	Results	Normal Values
AMYLASE	85	30-110
LIPASE	12	7-60

**URINALYSIS—PATIENT 13**

DATE: 8/19

Specimen	Results	Normal Values
COLOR	YELLOW	
APPEARANCE	CLEAR	CLEAR
GLUCOSE	NORM	NORMAL
BILIRUBIN	NEGATIVE	NEGATIVE
KETONES	NEGATIVE	NEGATIVE
SPEC. GRAVITY	1.005	1.003-1.030
BLOOD	NEGATIVE	NEGATIVE
pH	7.0	5.0-8.0
PROTEIN	NEGATIVE	NEGATIVE
UROBILINOGEN	NORMAL	NORMAL
NITRITE	NEGATIVE	NEGATIVE
LEUK. ESTERASE	NEGATIVE	NEGATIVE



**RADIOLOGY REPORT—PATIENT 13****EXAM:** CT ABDOMEN**CLINICAL HISTORY:** Abdominal pain**DESCRIPTION OF EXAM:** CT of the abdomen and pelvis with contrast

**RESULT:** Helical CT was done after 150 cc Isovue-300 IV and oral contrast were given. The liver, spleen, pancreas and adrenals are normal. The kidneys, ureters and bladder are unremarkable. No aortic aneurysm or periaortic adenopathy. No masses or unusual fluid collections. The gallbladder is unremarkable. The appendix is retrocecal and is normal. There is slight thickening of the wall of the terminal ileum. The possibility of inflammatory bowel disease cannot be excluded. There is slight thickening of the wall of the urinary bladder.

**IMPRESSION:**

1. Slight thickening of the wall of the terminal ileum. The possibility of early, inflammatory bowel disease such as Crohn's disease cannot be excluded. If clinically indicated, small bowel series is suggested for further evaluation. Otherwise negative CT of abdomen and pelvis.
2. Normal retrocecal appendix
3. Possible mild cystitis

Enter five diagnosis codes and one procedure code.

ICD9

ICD9

ICD9

ICD9

ICD9

ICD9



**INPATIENT RECORD — PATIENT 14****DISCHARGE SUMMARY****DATE OF ADMISSION:** 1/27**DATE OF DISCHARGE:** 1/29**DISCHARGE DIAGNOSIS:** Nonrheumatic congestive heart failure

**ADMISSION HISTORY:** This is a 57-year-old married white male, referred because of recurrent shortness of breath and cough. He states that he was in his usual state of good health until approximately Christmas, when he developed a persistent cough with associated dyspnea. His dyspnea was most prominent with exertion. He was treated with Ceclor at that time, with some improvement. However, his symptoms recurred and he underwent a second course of antibiotics, again with some improvement. However, his symptoms have now recurred and he is referred for further evaluation.

He has known tricuspid insufficiency, mild left ventricular dysfunction and left ventricular dilation by echocardiogram done 6/2. He had a normal stress ECG 10/3. The patient also has hypertension.

**COURSE IN HOSPITAL:** The patient was referred because of recurrent shortness of breath and cough. Apparently the patient had been doing well up until Christmas. His cough was treated with antibiotics with some improvement. His symptoms, however, recurred, requiring a second course of antibiotics.

The patient was admitted with a diagnosis of congestive heart failure. He was started on diuretics with improvement in his physical examination and his symptoms. An echocardiogram was performed, which is described as above.

The patient was extremely anxious to go home and thought that the rest of his care could be accomplished as an outpatient. He is tolerating his medications and will remain on the Capoten and the Lasix and will have a follow-up appointment with his doctor in one to two weeks and I will see him again in approximately 4 weeks. It is recommended at that time that discussion for cardiac catheterization be carried out. This was discussed with the patient during his hospitalization, the reason being that perhaps his aortic insufficiency is more significant than what is appreciated on physical examination and by echocardiogram. The catheterization would aid in the evaluation of the etiology of his LV dysfunction and his left ventricular enlargement. He has also been given information about smoking cessation.

**INSTRUCTIONS ON DISCHARGE:**

1. Capoten 12.5 mg b.i.d.
2. Lasix 40 mg daily
3. Insulin Humulin N 14 in a.m. with 6 of regular and Humulin N 20 units in the p.m. with 12 of regular



**HISTORY AND PHYSICAL EXAMINATION—PATIENT 14**

**ADMITTED:** 1/27

**REASON FOR ADMISSION:** This is a 57-year-old married white male, referred because of recurrent shortness of breath and cough. He states that he was in his usual state of good health until approximately Christmas, when he developed a persistent cough with associated dyspnea. His dyspnea was most prominent with exertion. He was treated with Ceclor at that time with some improvement. However, his symptoms recurred and he underwent a second course of antibiotics, again with some improvement. However, his symptoms have now recurred and he is referred for further evaluation.

He has known moderate tricuspid valve insufficiency, mild left ventricular dysfunction and left ventricular dilation by echocardiogram. He had a normal stress ECG on 10/3.

**PAST MEDICAL HISTORY:** The patient has a history of type 1 diabetes mellitus. He believes that his most recent cholesterol reading was lower than 200. He previously has been hospitalized for pericarditis and for resection of popliteal artery aneurysm. He has a history of hypertension.

**ALLERGIES:** None known

**CHRONIC MEDICATIONS:** Humulin Insulin 6 units of R and 14 units of N in the morning and 12 units of R and 20 units of N in the evening. Lotensin 20 mg PO daily.

He denies any drug allergies.

**FAMILY HISTORY:** Noncontributory

**SOCIAL HISTORY:** The patient is married and lives with his wife and smokes one to two packs of cigarettes per day.

**REVIEW OF SYSTEMS:** Otherwise noncontributory



## HISTORY AND PHYSICAL EXAMINATION — PATIENT 14

**PHYSICAL EXAMINATION:** Reveals a blood pressure of 140/80, pulse 80 and regular. The patient was a pleasant, adult, white male who is in no acute distress. His carotids were without bruits. The jugular venous pulse was normal. Examination of his lungs was remarkable for fine, bibasilar rales. On auscultation of his heart, he has a regular rhythm, a soft murmur consistent with tricuspid insufficiency. Abdominal examination was unremarkable except for the presence of a liver edge just below the costal margin. He had no peripheral edema.

**LABORATORY DATA:** Thyroid function tests were within normal limits. Total cholesterol level was 194. His HDL and LDL are presently still pending. His blood sugar levels have been well controlled in the low 100s. His electrolytes and SMA 12 are normal as well as his complete blood count.

His EKG on admission revealed sinus rhythm with left atrial enlargement, nonspecific ST-T wave abnormality with poor R wave progression, no acute changes.

His echocardiogram revealed left ventricular enlargement, normal left atrial size at 4 cm, mild overall reduction of left ventricular contractility with diffuse hypokinesis, mild to moderate tricuspid insufficiency.

### IMPRESSION:

1. Persistent shortness of breath and cough—possible nonrheumatic congestive heart failure; rule out persistent respiratory tract infection
2. Tricuspid insufficiency, left ventricular dysfunction/dilation, by echocardiogram
3. Type 1 diabetes mellitus
4. Smoking history



**CONSULTATION—PATIENT 14****DATE:** 1/28

Podiatric consultation was requested. The patient's chart was reviewed in the following manner:

H & P, Labs, progress notes, physician's orders, previous consultations and any other pertinent information remaining in the patient's chart.

**CHIEF COMPLAINT:** Diabetic foot care

**PHYSICAL EXAMINATION:** The patient is a 57-year-old white male admitted with a history of hypertension and diabetes mellitus, insulin dependent for approximately 7 years. The patient has shortness of breath and is a smoker. The patient states that he has had a problem with one of the valves in his heart for approximately 3 years. The patient had resection of an aneurysm in the right leg in 1989. The patient has no known drug allergies. Multiple nails, right and left feet are hypertrophic and mycotic with in-growing tendencies. The patient has had trauma to both the great toenails at the age of 12 years due to a vehicular accident. Gait analysis will be deferred at this time. Pulses are present in both feet and ankles. The toes are warm. There are no digital lesions at this time. The muscle tone and power are fair. The patient denied having intermittent claudication during gait or phlebitis affecting either lower extremity. The patient does have some numbness of the right great toe, status post-surgery for the popliteal aneurysm.

**IMPRESSION:**

1. Type 1 diabetes mellitus
2. Congestive heart failure
3. Valvular heart disease
4. Smoker
5. Status post resection of aneurysm of the right leg
6. Hypertension

**PLAN:** Podiatric consultation; initial; comprehensive. Debridement of hypertrophic mycotic nail plates bilateral feet—symptomatic

**PROCEDURE:** Debridement of hypertrophic mycotic nail plates, bilateral feet, symptomatic

**RECOMMENDATIONS:** Diabetic foot care q. 1 to 3 months. The patient will be followed p.r.n.

**PROGRESS NOTES—PATIENT 14**

DATE	NOTE
1/27	Physical examination reveals rales and evidence of valvular heart disease. Will diurese with Lasix and obtain an echocardiogram.
1/28	Patient better today—no shortness of breath, no edema. The importance of smoking cessation was discussed with the patient.
1/29	Will discharge the patient today.



**PHYSICIAN'S ORDERS—PATIENT 14**

DATE	ORDER
1/27	Chest x-ray Monitor input and output Lasix 40 mg IV now and 40 mg PO in a.m. Schedule patient for an echocardiogram CBC Consult podiatry for diabetic foot care Lotensin 20 mg PO daily in a.m.
1/23	Discharge patient to home.

**LABORATORY REPORTS—PATIENT 14****HEMATOLOGY**

DATE: 1/27

Specimen	Results	Normal Values
WBC	10	4.3–11.0
RBC	5.0	4.5–5.9
HGB	16.2	13.5–17.5
HCT	48	41–52
MCV	93	80–100
MCHC	35	31–57
PLT	339	150–450

**RADIOLOGY REPORT—PATIENT 14**

DATE: 1/28

Chest x-ray

**DIAGNOSIS:** The examination is compared to a prior examination on March 2 of last year. The cardiac silhouette remains at the upper limits of normal in size. The pulmonary vascularity appears slightly congested and there is a right-sided pleural effusion that was not present on the prior examination. There is minimal blunting of the left costophrenic angle. The appearance suggests congestive heart failure.

**IMPRESSION:** Findings of congestive heart failure



Enter seven diagnosis codes and two procedure codes.

PDX	<input type="text"/>
DX2	<input type="text"/>
DX3	<input type="text"/>
DX4	<input type="text"/>
DX5	<input type="text"/>
DX6	<input type="text"/>
DX7	<input type="text"/>
PP1	<input type="text"/>
PR2	<input type="text"/>



## INPATIENT RECORD — PATIENT 15

### DISCHARGE SUMMARY

**DATE OF ADMISSION:** 10/21

**DATE OF DISCHARGE:** 10/22

**DISCHARGE DIAGNOSIS:** Retained products of conception with vaginal bleeding following dilation and curettage (D & C) for miscarriage and tobacco and alcohol abuse.

**COURSE IN HOSPITAL:** The patient was admitted to the emergency department due to fainting and vaginal bleeding. The patient was taken to the OR for D & C. Pathology revealed decidua and chronic villa. She previously underwent a D & C for a 14-week miscarriage last week at another institution. The patient was encouraged to decrease her alcohol intake and to stop smoking. The patient appeared depressed over her recent miscarriage. A psych consult was ordered.

**INSTRUCTIONS ON DISCHARGE:** If heavy bleeding occurs, contact my office immediately. A follow-up visit is scheduled with the psychiatrist in 2 weeks. The patient was also given information about Alcoholics Anonymous as well as a prescription for Wellbutrin to be taken as directed for depression and smoking cessation.

## HISTORY AND PHYSICAL EXAMINATION — PATIENT 15

**ADMITTED:** 10/21

**REASON FOR ADMISSION:** Heavy bleeding from vagina

**HISTORY OF PRESENT ILLNESS:** She has had irregular spotting and light flow on and off since a spontaneous abortion that occurred last week. She was admitted to another hospital at that time and underwent a D & C due to a spontaneous abortion at 14 weeks. The patient noted heavy bleeding today. She fainted in the bathroom and was brought to the emergency department by her family.

**PAST MEDICAL HISTORY:** The patient developed bronchitis as a child, but was not treated other than with decongestant. Her last menstrual period was 6 weeks ago.

**ALLERGIES:** None known

**CHRONIC MEDICATIONS:** None

**FAMILY HISTORY:** Mother has hypertension. Two sisters have had heart surgery for congenital heart problems.

**SOCIAL HISTORY:** The patient smokes one pack of cigarettes per day and reports intake of one 6-pack of beer every few days during the week. The patient tried to abstain from alcohol during her pregnancy but was not successful.

**REVIEW OF SYSTEMS:** The patient is normally healthy. She has had a runny nose for about two days. Her bowel movements are normal, once every 2 to 3 days and her urinary function is normal. She eats three meals per day. She gets heartburn when she eats spicy foods. She drinks with her meals and into the evening on a continual basis.



**HISTORY AND PHYSICAL EXAMINATION—PATIENT 15 (continued)****PHYSICAL EXAMINATION:**

**HEENT:** PERRLA, EOM normal, thyroid not enlarged

**CHEST:** Clear to P & A without CVA tenderness

**HEART:** NSR without murmur

**ABDOMEN:** Soft and nontender with active bowel sounds

**EXTREMITIES:** Without edema, cyanosis, or clubbing

**NEURO:** CN's II–XII grossly intact. Reflexes are normal. No sensory or motor defects noted.

**PELVIC:** Uterus is of normal size with AV and femoral adnexa negative. Vaginal vault filled with serum fluid and clots. Cervix reveals pink with blood oozing from OS—no foreign body or laceration noted.

**ASSESSMENT:** Dysfunctional uterine bleeding

**PLAN:** D & C

**CONSULTATION—PATIENT 15****PSYCH CONSULT**

Thank you for requesting a consult with this patient. I met with her and found her to be depressed secondary to recent miscarriage. There was no evidence of suicidal thoughts. She denies any thoughts of harming herself or others. The patient has a history of alcohol abuse, three 6-packs of beer per week, and tobacco 1 ppd.

**IMPRESSION:**

1. Major depression—secondary to recent miscarriage
2. Alcohol abuse
3. Tobacco abuse

Will treat with Wellbutrin 150 mg PO daily  $\times$  3 days then BID thereafter. Follow up in 2 weeks.



**PROGRESS NOTES—PATIENT 15**

DATE	NOTE
10/21	<p>The patient has been bleeding for approximately 1 week utilizing at least 3 pads per day for flow of blood. We will repeat the D &amp; C to determine if the patient has retained products of conception.</p> <p><b>PREOPERATIVE DIAGNOSIS:</b> Severe menorrhagia</p> <p><b>POSTOPERATIVE DIAGNOSIS:</b> Same</p> <p><b>OPERATION:</b> Dilatation and curettage</p> <p><b>ANESTHESIA:</b> Paracervical block using 1% Xylocaine and sedation using IV Valium</p> <p>The patient tolerated the procedure well. Await pathology report.</p> <p>The patient appears depressed, will order a psych consult.</p>
10/22	<p>The patient has decreased bleeding with decreased cramping. Will discharge today. Psych consult appreciated. The importance of decreasing alcohol and tobacco use was stressed as was the effect of these substances on fetal development. The patient will follow up with the psychiatrist after discharge.</p>

**PHYSICIAN'S ORDERS—PATIENT 15**

DATE	ORDER
10/21	<p>Admit the patient to the labor and delivery floor</p> <p>Vaginal prep</p> <p>1,000 cc LR</p> <p>NPO</p> <p>Type and screen</p> <p>CBC</p> <p>Psych consult</p>
10/22	<p>Discharge patient to home</p>



**OPERATIVE REPORT—PATIENT 15**

**DATE:** 10/21

**PREOPERATIVE DIAGNOSIS:** Severe menorrhagia

**POSTOPERATIVE DIAGNOSIS:** Same

**OPERATION:** Dilatation and curettage

**ANESTHESIA:** Paracervical block using 1% Xylocaine and sedation using IV Valium

**OPERATIVE PROCEDURE:** The patient was brought to the operating room and placed in the supine position. After IV Valium sedation, the patient was placed in the lithotomy position. The vaginal and perineal areas were then prepped and draped in the usual manner for vaginal surgery. Weighted speculum was inserted and the anterior retractor was used to expose the cervix. The cervix was then grasped using the Jacob's tenaculum. The paracervical block was then performed and then using Pratt dilators, the cervix was dilated up to #23. The uterus was then sounded and found to be approximately 7.5 cm. Using a medium-sized sharp curette, the uterine cavity was then curetted in systematic fashion from 12 o'clock clockwise to 6 o'clock and then from 12 o'clock counterclockwise to 6 o'clock. Endometrial tissue obtained was sent to pathology. The Jacob's tenaculum was removed and with assurance of hemostasis, the weighted speculum was removed. The patient tolerated the procedure and anesthesia well and arrived in the recovery room in satisfactory condition.

**PATHOLOGY REPORT—PATIENT 15**

**DATE:** 10/22

**GROSS DESCRIPTION:** Labeled "endometrium" are multiple irregular fragments of tan-white tissue and blood clots, forming a spheroid 1.0 cm in diameter. All blocked.

**MICROSCOPIC DESCRIPTION:**

**DIAGNOSIS:** Secretory endometrium, with necrotic fragments of decidua and chorionic villi, consistent with retained products of conception.



**LABORATORY REPORTS—PATIENT 15****HEMATOLOGY****DATE:** 10/21

Specimen	Results	Normal Values
WBC	10	4.3–11.0
RBC	5.0	4.5–5.9
HGB	13.5	13.5–17.5
HCT	41	41–52
MCV	93	80–100
MCHC	35	31–57
PLT	339	150–450

*Enter six diagnosis codes and one procedure code.*

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**PDX****DX2****DX3****DX4****DX5****DX6****PP1**



# PRACTICE EXAM 1



A blank answer sheet for these multiple choice questions can be found on page 135.

**Domain I Health Information Documentation**

1. A 7-year-old patient was admitted to the emergency department for treatment of shortness of breath. The patient is given epinephrine and nebulizer treatments. The shortness of breath and wheezing are unabated following treatment. What diagnosis should be suspected?
  - a. Acute bronchitis
  - b. Acute bronchitis with chronic obstructive pulmonary disease
  - c. Asthma with status asthmaticus
  - d. Chronic obstructive asthma
2. A patient is admitted with a high temperature, lethargy, hypotension, tachycardia, oliguria, and elevated WBC. The patient also has more than 100,000 organisms of *Escherichia coli* per cc of urine. The attending physician documents "urosepsis." What is the next step for the coder?
  - a. Code sepsis as the principal with a secondary diagnosis of urinary tract infection due to *E. coli*.
  - b. Code urinary tract infection with sepsis as a secondary diagnosis.
  - c. Query the physician to determine if the patient is being treated for sepsis, highlighting the clinical signs and symptoms.
  - d. Ask the physician whether the patient had septic shock so that this may be used as the principal diagnosis.
3. During a coronary artery bypass surgery, the patient underwent saphenous bypass grafts; from the aorta to the left anterior descending branch of the left main coronary artery, and the left posterior descending of the left main coronary artery. The patient also underwent a repositioning of the mammary artery to the right coronary artery. Choose the best description for this procedure.
  - a. Three aortocoronary grafts
  - b. Two aortocoronary grafts and one mammary-coronary graft
  - c. Two aortocoronary grafts and two saphenous bypass grafts
  - d. Three aortocoronary grafts and one mammary-coronary graft
4. According to CPT, an endoscopy that is undertaken to the level of the midtransverse colon would be coded as a:
  - a. Proctosigmoidoscopy
  - b. Sigmoidoscopy
  - c. Colonoscopy
  - d. Proctoscopy
5. Infusion of Herceptin, a monoclonal antibody used for treatment of breast cancer in patients carrying a certain mutation of the HER2 gene, is classified as:
  - a. Chemotherapy
  - b. Radiotherapy
  - c. Molecular Targets
  - d. Immunotherapy



6. A patient has findings suggestive of chronic obstructive pulmonary disease (COPD) on chest x-ray. The attending physician mentions the x-ray finding in one progress note but no medication, treatment, or further evaluation is provided. The coder should:
  - a. Query the attending physician regarding the x-ray finding
  - b. Code the condition because the documentation reflects it
  - c. Question the radiologist regarding whether to code this condition
  - d. Use a code from abnormal findings to reflect the condition
7. If a patient undergoes an inpatient procedure and the final summary diagnosis is different from the diagnosis on the pathology report, the coder should:
  - a. Code only from the discharge diagnoses
  - b. Code the diagnosis reflected on the pathology report
  - c. Code the most severe symptom
  - d. Query the attending physician as to the final diagnosis
8. A 56-year-old woman is admitted to an acute-care facility from a skilled nursing facility. The patient has multiple sclerosis and hypertension. During the course of hospitalization a decubitus ulcer is found and debrided at the bedside by a physician. There is no typed operative report and no pathology report. The coder should:
  - a. Use an excisional debridement code as these charts are rarely reviewed to verify the excisional debridement
  - b. Code with a nonexcisional debridement procedure code
  - c. Query the healthcare provider who performed the procedure to determine if the debridement was excisional
  - d. Eliminate the procedure code all together
9. A 23-year-old female is admitted for shock following treatment of a miscarriage. The pathology report from the previous admission reveals that the patient had no decidua or products of conception in the tissue removed. This encounter would be coded as:
  - a. O03.81, Spontaneous abortion complicated by shock
  - b. O08.9, Complication following abortion and ectopic and molar pregnancies
  - c. R57.9, Shock NOS
  - d. T81.10XA, Postoperative shock
10. Most hospitals require a medical record is completed within:
  - a. 5 days
  - b. 10 days
  - c. 7 days
  - d. 30 days



11. To correct an entry in the medical record, the provider should:
  - a. Draw a single line through the error, add a note explaining the error, initial and date, add the correct information in chronological order
  - b. Draw a double line through the error, initial and date, add the reason for the correction
  - c. Draw a single line through the error, and add the correct information in chronological order
  - d. Draw several lines through the error, obliterate the documentation as much as possible, initial and date, add the correct information in chronological order
12. After a patient is discharged from the hospital, the medical record must be reviewed for:
  - a. Inclusion of all incident reports
  - b. Certain basic reports (for example history and physical, discharge summary, etc.)
  - c. Voided prescription pads
  - d. Personal case notes from all mental health providers
13. A patient is discharged with a diagnosis of acute pulmonary edema due to congestive heart failure. What condition(s) should be coded?
  - a. Acute pulmonary edema
  - b. Congestive heart failure
  - c. Acute pulmonary edema and congestive heart failure
  - d. Unable to determine based on the information provided

## Domain II *Diagnosis & Procedure Coding*

14. A patient is admitted for chest pain. The patient was stabilized and discharged. In a subsequent admission, the patient was admitted as an outpatient for a left heart catheterization, coronary arteriography using two catheters and left ventricular angiography. The patient was found to have arteriosclerotic heart disease. The patient has no history of cardiac surgery. The appropriate sequencing of ICD-10-CM and CPT codes for the outpatient catheterization would be:

I20.0	Unstable angina
I20.9	Angina pectoris, unspecified
I25.10	Atherosclerotic heart disease of native coronary artery without angina pectoris
R07.9	Chest pain, unspecified
93452	Left heart catheterization including intraprocedural injection(s) for left ventriculography, imaging supervision and interpretation, when performed
93453	Combined right and left heart catheterization including intraprocedural injection(s) for left ventriculography, imaging supervision and interpretation, when performed
93454	Catheter placement in coronary artery(s) for coronary angiography, including intraprocedural injection(s) for coronary angiography, imaging supervision and interpretation;
93458	with left heart catheterization including intraprocedural injection(s) for left ventriculography, when performed

- a. R07.9, 93452
- b. I20.0, 93454
- c. I25.10, 93453
- d. I25.10, 93458



15. A 65-year-old patient is admitted with pain and loosening of a left total hip prosthesis. The acetabular component has loosened and become painful. The patient was admitted for open removal and replacement of the acetabular component of the left hip prosthesis. What is the appropriate code(s) for the admission?

T84.031A	Mechanical loosening of internal left hip prosthetic joint, initial encounter
T84.030A	Mechanical loosening of internal right hip prosthetic joint, initial encounter
T84.50XA	Infection and inflammatory reaction due to unspecified internal joint prosthesis, initial encounter
Z96.642	Presence of left artificial hip joint
OSP90JZ	Removal of synthetic substitute from right hip joint, open approach
OSPB0JZ	Removal of synthetic substitute from left hip joint, open approach
OSUA0BZ	Supplement right hip joint, acetabular surface with resurfacing device, open approach
OSUR0BZ	Supplement right hip joint, femoral surface with resurfacing device, open approach
OSUA0BZ	Supplement, right hip joint, acetabular surface with resurfacing device, open approach
OSRA0JZ	Replacement of right hip joint, acetabular surface with synthetic substitute, open approach
OSRE0JZ	Replacement of left hip joint, acetabular surface with synthetic substitute, open approach

- a. T84.031A, OSPB0JZ, OSRE0JZ  
 b. T84.50XA, OSUR0BZ  
 c. T84.0319A, Z96.649, OSP90JZ  
 d. T84.50XA, Z96.649, OSUR0BZ, OSUA0BZ
16. A maternity patient is admitted in labor at 43 weeks. She has a normal delivery with vacuum extraction to facilitate the baby's delivery. Which of the following would be the principal diagnosis?

O80	Encounter for full-term uncomplicated delivery
O48.0	Post-term pregnancy
O48.1	Prolonged pregnancy
O66.5	Attempted application of vacuum extractor and forceps

- a. O48.0  
 b. O48.1  
 c. O80  
 d. O66.5
17. With regard to the implementation of ICD-10-CM, all of the following are correct *except*:
- a. ICD-10-CM was developed by NCHS  
 b. ICD-10-CM and ICD-10-PCS will be fully implemented beginning October 1, 2016  
 c. ICD-10 is already being used in the United States for death certificate coding  
 d. The process of adoption of ICD-10-CM is specified in HIPAA



18. A 75-year-old female was admitted for acute myocardial infarction and underwent a diagnostic cardiac catheterization. Following the catheterization, the patient developed a thrombophlebitis documented as due to the catheter in the common femoral artery. The thrombophlebitis would be coded as:
  - a. T81.718A, Complication of other artery following a procedure, not elsewhere classified, initial encounter
  - b. I97.51, Accidental puncture and laceration of a circulatory system organ or structure during a circulatory system procedure
  - c. I72.4, Aneurysm of artery of lower extremity
  - d. I97.52, Accidental puncture and laceration of a circulatory system organ or structure during other procedure
  
19. A patient was admitted to the emergency department with chest pain, and was diagnosed with aborted myocardial infarction with acute myocardial ischemia. There was no prior cardiac surgery. The cardiac enzymes were normal. The appropriate coding of the diagnosis for this case is:
  - a. I21.3, ST elevation (STEMI) myocardial infarction of unspecified site
  - b. I25.10, Atherosclerotic heart disease of native coronary artery without angina pectoris
  - c. I24.8, Other forms of acute ischemic heart disease
  - d. I24.0, Acute coronary thrombosis not resulting in myocardial infarction
  
20. A patient has nausea and vomiting with abdominal pain due to acute cholecystitis. The physician documents the following on the discharge summary: acute cholecystitis, nausea, vomiting, and abdominal pain. The correct diagnosis code(s) are:
  - a. Acute cholecystitis, nausea, vomiting, and abdominal pain
  - b. Acute cholecystitis, nausea, vomiting
  - c. Acute cholecystitis, nausea
  - d. Acute cholecystitis
  
21. A patient is admitted because of congestive heart failure (CHF). During the treatment of the CHF the patient was also found to have elevated liver function tests. The physician worked up the elevated liver function tests but was not able to determine a diagnosis. The following diagnoses should be assigned:
  - a. Congestive heart failure with liver disease
  - b. Abnormal liver function tests
  - c. Congestive heart failure and abnormal liver function tests
  - d. Congestive heart failure
  
22. A patient is admitted with hypotension due to dobutamine taken and prescribed correctly. How should this be coded?
  - a. I95.1, Orthostatic hypotension  
T44.5X5A, Adverse effects of dobutamine
  - b. I95.2, Hypotension due to drugs  
T44.5X5A, Adverse effects of dobutamine
  - c. I95.89, Other hypotension  
T44.995A, Adverse effects of dobutamine
  - d. I95.81, Postprocedural hypotension  
T44.995A, Adverse effects of dobutamine



23. A patient is readmitted two weeks after a laminectomy for spinal stenosis with a headache and documentation that the headache is due to a tear in the dura accidentally that occurred during the prior laminectomy surgery. The patient is taken to the operating room for repair of the dura. The diagnosis code(s) assigned for this admission would be:
- M48.06, Spinal stenosis, lumbar region
  - G97.41, Accidental puncture or laceration of dura during a procedure
  - G97.1, Other reaction to spinal and lumbar puncture
  - S34.109A, Unspecified injury to unspecified level of lumbar spinal cord, initial encounter
24. A patient is admitted to the hospital with shortness of breath and congestive heart failure and subsequently develops respiratory failure. The patient undergoes intubation with ventilator management. The correct sequencing of the diagnoses in this case would be:
- Congestive heart failure and respiratory failure
  - Respiratory failure
  - Respiratory failure and congestive heart failure
  - Shortness of breath, congestive heart failure, and respiratory failure
25. If a patient is admitted with pneumococcal pneumonia and pneumococcal sepsis, the coder should:
- Assign a code for only the sepsis and pneumonia
  - Assign a code for the sepsis, pneumonia, and severe sepsis
  - Assign only a code for pneumococcal pneumonia
  - Review the chart to determine if septic shock could be used first
26. A patient was admitted with end stage renal disease (ESRD) following kidney transplant. The patient also had angina and chronic obstructive pulmonary disease. The diagnoses would be sequenced as:
- Kidney failure; status post kidney transplant; chronic obstructive pulmonary disease; angina
  - End-stage renal disease; status post kidney transplant; chronic obstructive pulmonary disease; angina
  - Chronic kidney disease, stage 5; status post kidney transplant; chronic obstructive pulmonary disease; angina
  - Acute kidney failure; status post kidney transplant; chronic obstructive pulmonary disease; angina
27. A patient is admitted to the hospital due to a fracture of the right hip and is scheduled for an open reduction with internal fixation. The patient developed cardiac arrhythmia which results in an inability to do the planned surgery. Assign a code for the principal diagnosis.
- Status post fracture
  - Cardiac arrhythmia
  - Right hip fracture
  - Admission for possible fracture



28. Which of the following is *not* part of a facility coding compliance plan?

- a. Regular internal audits
- b. Audits performed by objective external reviewers
- c. Coding audits performed by payers
- d. Sharing and discussing results with coding staff

29. In CPT, unlisted codes are reported only if:

- a. There is not a current CPT category I code available
- b. There is not a current CPT category III code available
- c. There is not a current CPT category II code available
- d. There is not a current CPT category II or III code available

30. A virtual screening colonoscopy would be coded as:

45378	Colonoscopy, flexible, proximal to splenic flexure; diagnostic, with or without collection of specimen(s) by brushing or washing, with or without colon decompression (separate procedure)
45391	Colonoscopy, flexible, proximal to splenic flexure; with endoscopic ultrasound examination
74263	Computed tomographic (CT) colonography, screening including image postprocessing
76376	3D rendering with interpretation and reporting of computed tomography, magnetic resonance imaging, ultrasound, or other tomographic modality with image post-processing under concurrent supervision; not requiring image postprocessing on an independent workstation

- a. 74263
- b. 45391
- c. 45378
- d. 76376

31. A patient underwent an excision of a malignant lesion of the chest that measured 1.0 cm and there was a 0.2 cm margin on both sides. Based on the 2015 CPT codes, which code would be used for the procedure?

- a. 11401, Excision benign lesion of trunk; excised diameter 0.6 cm to 1.0 cm
- b. 11601, Excision malignant lesion of trunk; excised diameter 0.6 cm to 1.0 cm
- c. 11602, Excision malignant lesion of trunk; excised diameter 1.1 cm to 2.0 cm
- d. 11402, Excision benign lesion of trunk; excised diameter 1.1 cm to 2.0 cm

32. A patient was diagnosed with L4-5 lumbar neuropathy and discogenic pain. The patient underwent a percutaneous intradiscal electrothermal annuloplasty (IDET) in the radiology suite. What ICD-10-PCS code should be used?

- a. 0S520ZZ, Destruction, lumbar vertebral disc, open approach
- b. 015B0ZZ, Destruction, lumbar nerve, open approach
- c. 0S523ZZ, Destruction, lumbar vertebral disc, percutaneous
- d. 0SB20ZZ, Excision, lumbar vertebral disc, open approach



33. A laparoscopic tubal ligation with Falope ring is completed. What is the correct CPT code assignment?

49321	Laparoscopy, surgical; with biopsy (single or multiple)
58662	Laparoscopy, surgical; with fulguration or excision of lesions of the ovary, pelvic viscera, or peritoneal surface by any method
58670	Laparoscopy, surgical; with fulguration of oviducts (with or without transection)
58671	Laparoscopy, surgical; with occlusion of oviducts by device (eg, band, clip, or Falope ring)

- a. 49321, 58662
- b. 58670
- c. 58671
- d. 49321

34. Carcinoma of multiple overlapping sites of the bladder. Diagnostic cystoscopy and transurethral fulguration of bladder lesions (1.9 cm, 6.0 cm) are undertaken. The appropriate CPT code(s) would be:

52000	Cystourethroscopy (separate procedure)
52224	Cystourethroscopy, with fulguration (including cryosurgery or laser surgery) or treatment of minor (less than 0.5 cm) lesion(s) with or without biopsy
52234	Cystourethroscopy, with fulguration (including cryosurgery or laser surgery) and/or resection of small bladder tumor(s) (0.5 cm to 2.0 cm)
52235	Cystourethroscopy, with fulguration (including cryosurgery or laser surgery) and/or resection of medium bladder tumor(s) (2.0 cm to 5.0 cm)
52240	Cystourethroscopy, with fulguration (including cryosurgery or laser surgery) and/or resection of large bladder tumor(s)

- a. 52234, 52240
- b. 52235
- c. 52240
- d. 52000, 52234

35. A patient presents to a facility for upper endoscopy implant of material into the muscle of the lower esophageal sphincter. The correct coding and sequencing of this patient's record is:

43235	Upper gastrointestinal endoscopy including esophagus, stomach, and either the duodenum and/or jejunum as appropriate; diagnostic, with or without collection of specimen(s) by brushing or washing (separate procedure)
43236	with directed submucosal injection(s), any substance
43257	with delivery of thermal energy to the muscle of lower esophageal sphincter and/or gastric cardia, for treatment of gastroesophageal reflux disease
43270	with ablation of tumor(s), polyp(s), or other lesion(s) (includes pre- and post-dilation and guide wire passage, when performed.
-59	Distinct procedure service

- a. 43257
- b. 43235, 43236
- c. 43236
- d. 43270-58, 43236-59



36. A patient undergoes a colposcopy with endometrial biopsy. Which of the following is correct?
- The colposcopy and endometrial biopsy are represented by a combination code.
  - Two codes would be used with modifier -59 appended.
  - Two codes would be used in accordance with 2015 CPT code revisions.
  - Only one code is used and it does not state that it includes endometrial biopsy specifically.
37. A patient presents to the outpatient surgical area for a cystoscopy with multiple biopsies of the bladder. The patient's presenting symptom is hematuria. What is the correct code assignment for this procedure?

52000	Cystourethroscopy (separate procedure)
52204	Cystourethroscopy with biopsy(s)
-22	Increased procedural services

- 52000
  - 52000-22
  - 52204
  - 52204-22
38. If a patient has an excision of a malignant lesion of the skin, the CPT code is determined by the body area from which the excision occurs and the:
- Length of the lesion as described in the pathology report
  - Dimension of the specimen submitted as described in the pathology report
  - Width times the length of the lesion as described in the operative report
  - Diameter of the lesion as well as the margins excised as described in the operative report
39. When coding "arthrocentesis," the code assignment is determined by:
- Contrast used
  - Size of the joint
  - Approach
  - Description of the closure
40. Assign the correct code for an open total cholecystectomy with exploration of common bile duct and removal of common bile duct stone.
- 0FT40ZZ, Resection gallbladder, open approach and 0FC90ZZ, Removal, common bile duct stone, open
  - 0FT44ZZ, Resection gallbladder, laparoscopic approach and 0FC90ZZ, Removal, common bile duct stone, open
  - 0FQ40ZZ, Repair gallbladder, open approach
  - 0FC90ZZ, Removal, common bile duct stone, open approach



41. Assign the correct code for a total laparoscopic cholecystectomy with percutaneous removal of common bile duct stones.
- 0DTJ4ZZ, Resection of appendix, percutaneous endoscopic approach and 0FC90ZZ, Removal, common bile duct stones, open
  - 0FB40ZZ, Excision, gallbladder, open approach
  - 0FT40ZZ, Resection, gallbladder, open approach
  - 0FT44ZZ, Resection, gallbladder, Resection of gallbladder, percutaneous endoscopic approach and 0FC94ZZ, Removal, common bile duct stones, laparoscopic
42. Assign the correct code for a total open cholecystectomy with intraoperative cholangiogram. The cholangiogram was done with plain radiography with low osmolar contrast.
- 0DTJ4ZZ, Resection appendix, percutaneous endoscopic approach and 0FC94ZZ, Removal, common bile duct stones, laparoscopic
  - 0DBJ0ZZ, Excision, appendix, open approach
  - 0FB40ZZ, Excision, gallbladder, open approach
  - 0FC94ZZ, Removal, common bile duct stones, laparoscopic and 0FT40ZZ, Resection, gallbladder, open approach
43. The root operation of resection applies to which of the following?
- Removal of the entire body part and removal of an entire lobe of the liver
  - Partial incidental appendectomy and the closure portion of a procedure
  - Blunt, digital, manual, or mechanical lysis of adhesions
  - Partial cholecystectomy
44. Inpatient procedures are coded with:
- HCPCS
  - CPT
  - ICD-10-PCS
  - ICD-O
45. A patient is admitted to the hospital for pain due to displacement of pacemaker electrode. The patient also has hypothyroidism due to partial thyroidectomy seven years ago and a breast cyst. The pacemaker electrode was relocated and synthroid was given during hospitalization. The diagnostic codes (excluding External Cause codes) that should be assigned are:

T82.110A	Breakdown (mechanical) of cardiac electrode, initial encounter
T82.110D	Breakdown (mechanical) of cardiac electrode, subsequent encounter
T82.120A	Displacement of cardiac electrode, initial encounter
T82.120S	Displacement of cardiac electrode, sequela
N60.09	Solitary cyst of breast
E89.0	Postsurgical hypothyroidism

- T82.110A, E89.0
- T82.110D, E89.0, N60.09
- T82.120A, E89.0
- T82.120S, E89.0, N60.09



46. Assign the code(s) for mammographic guidance for bilateral breast needle localization for a lesion placement with fine needle aspiration.

10022	Fine needle aspiration, with imaging guidance
19081	Biopsy, breast, with placement of localization device(s) (eg, clip, metallic pellet) when performed, and imaging of the biopsy specimen, percutaneous; first lesion including stereotactic guidance
19082	Biopsy, breast with placement of breast localization device(s) (eg, clip, metallic pellet), when performed, percutaneous; each additional lesion, including stereotactic guidance (List separately in addition to code for primary procedure.)

- a. 19082
- b. 10022
- c. 19081-50, 10022-50
- d. 19081

### Domain III Regulatory Guidelines and Reporting Requirements for Acute-Care (Inpatient) Service

47. Documentation in the record reveals that a patient is admitted with an acute exacerbation of COPD (MS-DRG 192). A higher-paying DRG may be appropriate if documentation is present in the record at the time the decision was made to admit the patient that confirms a diagnosis associated with which of the following:
- a. Angina was treated with nitroglycerin prn for chest pain
  - b. Atrial fibrillation and underwent a cardioversion while hospitalized
  - c. Blood gases of  $pO_2$  of 58,  $pCO_2$  of 55, pH of 7.32 upon admission and treated with intubation and mechanical ventilation for 23 hours
  - d. Anemia and was given a blood transfusion
48. A female patient is diagnosed with congestive heart failure. Which of the following will increase the MS-DRG weight if present on admission?
- a. Atrial fibrillation
  - b. Stage III pressure ulcer
  - c. Blood loss anemia
  - d. Coronary artery disease
49. If the principal diagnosis is an initial episode of an anterior wall myocardial infarction, which procedure will result in the highest DRG?
- a. Mechanical ventilator
  - b. Insertion central venous catheter
  - c. Right heart cardiac catheterization
  - d. Transbronchial lung biopsy



50. Patient admitted with hemorrhage due to placenta previa with twin pregnancy. This patient had two prior (cesarean section) deliveries. Emergency C-section was performed due to the hemorrhage. The appropriate principal diagnosis would be:
- Prior cesarean sections
  - Placenta previa without hemorrhage
  - Twin gestation
  - Placenta previa with hemorrhage
51. A patient is admitted with spotting and fever. She is found to have been treated for a miscarriage (spontaneous abortion), which was resolved two weeks prior to this admission. She is treated with aspiration dilation and curettage and products of conception are found. She is found to be septic. Which of the following diagnoses should be principal diagnosis?
- Complications following abortion and ectopic or other pregnancy
  - Complications of spontaneous abortion with sepsis
  - Sepsis
  - Sepsis following incomplete spontaneous abortion
52. A patient is admitted with an acute inferior myocardial infarction and discharged alive. Which condition would increase the MS-DRG weight?
- Respiratory failure
  - Atrial fibrillation
  - Hypertension
  - History of myocardial infarction
53. A 70-year-old patient was admitted with pneumonia. The history and physical documented that the patient has a history of diabetes, hypertension, and migraine headache about 10 years ago without recurrence. The patient was administered IV antibiotics, metformin, and Altace during the hospitalization. Which conditions would be reported at the time of discharge?
- Pneumonia, diabetes, hypertension, and migraine headaches
  - Pneumonia, diabetes, hypertension, and history of migraine headaches
  - Pneumonia, diabetes, and hypertension
  - Pneumonia
54. A diabetic patient was admitted for a treatment of a pressure ulcer. The patient also has a history of diabetic neuropathy and retinopathy. The patient is blind and additional nursing care and extended time with the patient was required. Which conditions should be coded at discharge?
- Pressure ulcer, history of neurologic condition, history of retinal condition, diabetes
  - Pressure ulcer, diabetic neuropathy and diabetic retinopathy, and blindness
  - Pressure ulcer, diabetic neuropathy
  - Pressure ulcer, diabetic retinopathy, and blindness



55. During an admission for CHF a chest x-ray was done to evaluate for the presence of congestive heart failure (CHF). An asymptomatic hernia was also found for which *no* treatment or evaluation was done. What is the primary reason that the hernia should not be coded?
- The patient's primary condition of interest is the CHF.
  - The hernia is an incidental finding.
  - The patient is asymptomatic.
  - The condition does not impact the reimbursement.
56. When an inpatient has had multiple tests to evaluate an abnormal finding but no definitive diagnosis has been documented the coder should:
- Assign a code for the abnormal finding
  - Assign codes for all of the abnormal results of the tests
  - Assign a diagnosis code based on the coder's judgment
  - Query the physician regarding whether a diagnosis should be assigned or not
57. A patient presents to a facility with a history of prostate cancer and mental confusion on admission. The patient completed radiation therapy for prostatic carcinoma three years ago and is status *post* a radical resection of the prostate. A CT scan of the brain reveals metastatic carcinoma of the brain. The correct coding and sequencing of this patient's record is:
- Metastatic carcinoma of the brain, carcinoma of the prostate, mental confusion
  - Mental confusion, history of carcinoma of the prostate, admission for chemotherapy
  - Metastatic carcinoma of the brain, history of carcinoma of the prostate
  - Carcinoma of the prostate, metastatic carcinoma to the brain

#### Domain IV Regulatory Guidelines and Reporting Requirements for Outpatient Services

Use the information in this table to answer questions 58 through 60.

Billing Number	Status Indicator	CPT/HCPCS	APC*
989323	V	99285-25	00616
989323	T	25500	00129
989323	X	72050	00261
989323	S	72128	08005
989323	N	70450	19937

\* This is not the actual reimbursement for the designated APC.

58. From the information provided, how many APCs would impact this patient's total reimbursement?
- 1
  - 5
  - 4
  - Unable to determine



59. What percentage will the facility be paid for procedure code 25500?

- a. 50%
- b. 75%
- c. 0%
- d. 100%

60. If another status T procedure were performed, how much would the facility receive for the second status T procedure?

- a. 50%
- b. 75%
- c. 0%
- d. 100%

61. When a Medicare patient receives an injection of IM penicillin G benzathine, 100,000 units only, what is the appropriate code assignment?

96372	Therapeutic, prophylactic or diagnostic injection (specify substance or drug); subcutaneous or intramuscular
96374	Therapeutic, prophylactic or diagnostic injection (specify substance or drug); intravenous push, single or initial substance/drug
J0558	Injection, penicillin G benzathine, and penicillin G procaine 100,000 units
J0561	Injection, penicillin G benzathine, 100,000 units

- a. 96372
- b. J0558
- c. 96374
- d. 96372, J0561

62. Determining medical necessity for outpatient services includes all the following *except*:

- a. Local coverage determinations (LCDs)
- b. National coverage determinations (NCDs)
- c. Diagnoses linked to procedures by claims-processing software tests ensuring that the procedure is cross-referenced, or linked, correctly to an acceptable diagnosis code for that service
- d. Requiring new HCPCS codes be developed to replace codes in the CPT code book

63. According to the UHDDS, section III, the definition of *other diagnoses* is all conditions that:

- a. Coexist at the time of admission, that develop subsequently, or that affect the treatment received and/or the length of stay
- b. Receive evaluation and is documented by the physician
- c. Receive clinical evaluation, therapeutic treatment, further evaluation, extend the length of stay, increase nursing monitoring/care
- d. Are considered to be essential by the physicians involved and are reflected in the record



64. If a patient has undergone an outpatient echocardiogram and the cardiologist concludes in the report that the patient has mitral regurgitation the coder should:
- Assign a diagnostic code for mitral regurgitation
  - Query the physician about the diagnosis
  - Code an abnormal finding of the echocardiogram
  - No code can be assigned
65. During an ambulatory surgery visit for excision of a malignant melanoma of the right forearm, the attending surgeon listed history of benign breast cyst, history of hypertension currently on Tenormin, and a current hammer toe. Which conditions are to be coded?
- Malignant melanoma of forearm, hypertension
  - Malignant melanoma of the right forearm, benign breast cyst, hypertension, and hammer toe
  - Malignant melanoma of the right forearm, benign breast cyst, and hypertension
  - Malignant melanoma of the right forearm, benign breast cyst
66. During an inpatient hospitalization, a chest x-ray done to evaluate a chronic cough revealed an asymptomatic compression fracture of a lumbar vertebrae. No further evaluation was undertaken. The coder should:
- Not assign a code for an acute condition but assign a code for chronic compression fracture
  - Assign a code for pathologic lumbar compression fracture
  - Assign a code for acute traumatic vertebral fracture
  - Not assign a code for this condition
67. During an outpatient visit the attending physician did not define a problem at the conclusion of an emergency department (ED) visit. The coder should:
- Assign a code from the list of conditions in the history that occurred in the past
  - Assign a code for the reason for the last visit to the ED
  - Assign codes for abnormal laboratory findings
  - Assign a code for the chief complaint as the reason for the visit
68. Coding professionals need to have surgical references in order to discriminate between:
- Correct and incorrect documentation based on Joint Commission requirements
  - Reportable and nonreportable procedures
  - Chemotherapeutic drugs
  - A comorbid condition and a complication that prolongs the length of stay

## **Domain V** *Data Quality and Management*

69. The outpatient code editor (OCE) has all of the following types of edits *except*:
- Claim accuracy
  - Discharge date discrepancy
  - Assigning APCs to the claim
  - Age and sex edits



Refer to the following data when answering questions 70 and 71. (Note: The DRG weights are not actual weights for fiscal year 2015.)

MS-DRG	MS-DRG Weight	Number of Patients
MS-DRG 193, Simple pneumonia and pleurisy age >17 w/CC	3.0	10
MS-DRG 195, Simple pneumonia without MCC or CC	2.0	10
MS-DRG 192, Chronic obstructive pulmonary disease w/o CC	1.0	10

70. The case-mix index for the information provided above is:
- 0.679
  - 0.89
  - 2.0
  - 0.75
71. The information provided shows that:
- The payment is higher for patients with pneumonia with CCs than without
  - There are more patients with pneumonia without MCCs than with MCCs
  - There is a large pediatric population at this hospital with pneumonia
  - There is inaccurate coding of pneumonia at this institution
72. A nurse inadvertently recorded an incorrect vital sign in a patient electronic health record. The next day, a correction was made in the electronic health record. This resulted in the corrected vital sign being recorded at the time the correction was made due to the software. What would be the result of this correction?
- The vital signs would be listed in the correct sequence.
  - When a correction is made in an electronic health record, the incorrect data is deleted.
  - The quality of patient care would not be affected.
  - There was a distorted trend line of vital signs data.
73. According to the UHDDS, in order to assign a code for another diagnosis, documentation must be present that:
- The condition is recorded in the patient record by a dietary clerk
  - The condition is present in the admission department data
  - The condition was clinically evaluated or therapeutically treated, extended the length of hospital stay or increased nursing care and monitoring or care
  - The condition is considered to be essential by the family
74. The quality of data is most directly tied to the:
- Conditions treated in surrounding healthcare settings
  - Surgical case review committee
  - Length of hospital stay
  - Use or application of the data



75. Poor-quality data collection and reporting can affect:
- a. Patient care, documentation, revenue generation, outcomes evaluation, and public health reporting
  - b. Use of patient record for legal purposes
  - c. Patient care, communication, research activities, and public health reporting
  - d. All of the above
76. The most succinct definition of where information comes from is:
- a. Shredded documents
  - b. Common blips of data
  - c. Processed data
  - d. Measurement of extremities
77. The Joint Commission considers what kind of management to be important for safe, quality care?
- a. Resource management
  - b. Recycling management
  - c. Information management
  - d. Incremental management
78. When applying AHIMA's ten data characteristics to a patient encounter, data timeliness during medication reconciliation would be reflected as follows:
- a. Patient's medications are available for patient care
  - b. Ensuring a standardized formulary
  - c. Attributes for each medication are defined
  - d. Checks are done to ensure that what is ordered is what is given to the patient

## **Domain VI** *Information and Communication Technologies*

79. Data warehousing to form clinical repositories is undertaken by merging insurance members' claims and clinical data. Data mining assists in all of the following *except*:
- a. Cost cutting
  - b. Suggest more appropriate medical treatments
  - c. Providing feedback to patients
  - d. Predict medical outcomes
80. DRG and APC groupers are usually part of an encoding system in which of the following healthcare settings?
- a. Physician offices
  - b. Long-term care facilities
  - c. Acute-care hospitals
  - d. Outpatient clinics



81. Data, people, and processes along with a combination of hardware, software, and communications technology are components of a(n):
- Information system
  - Classification system
  - Operating system
  - Security information
82. Health information exchanges facilitate:
- Information system interoperability
  - Reimbursement processes
  - Clinician to clinician communication
  - Seamless transfer of patient care data
83. Digital signatures are:
- Methods to detect intrusions
  - Required for process claims
  - Cryptography that ensures a document is authentic
  - A security gateway
84. All of the following are considered malicious software (malware) *except*:
- Computer virus
  - Spyware
  - Backdoor
  - Bus typology
85. Clinical information systems are used primarily for:
- Patient registration
  - Admission, discharge, and transfer
  - Patient care
  - Clinical document improvement
86. An object-oriented database contains:
- A database administrator
  - A description of register elements
  - Objects which are discrete or abstract things
  - Distributed data requirements



**Domain VII** *Privacy, Confidentiality, Legal, and Ethical Issues*

87. Based on the AHIMA Code of Ethics, which of the following is *not* considered an ethical activity?
- a. Coding audits
  - b. Educational purposes within the department
  - c. Reviewing the history and physical of a coworker when not part of work assignment
  - d. Completion of code assignment
88. Retention policies for the health information department depend on organizational retention policies that must be in accordance with local, state, and federal laws and regulations. These policies vary from institution to institution. In many instances, healthcare institutions may retain health records longer than the law requires. Which of the following statements best describes how the retention of records should be determined?
- a. Unless state or federal law requires longer periods of time, specific patient health information should be retained for established minimum time periods.
  - b. AHIMA has published specific guidelines for retention of health information and these guidelines should be followed for records retention.
  - c. The Joint Commission has developed standards for retention of health information which must be followed to maintain accreditation and these standards should be adhered to according to these guidelines with regard to time frames.
  - d. Health records should be retained according to their use in a facility and the state and federal laws do not apply to the retention of this health information.
89. A patient is admitted to undergo a laparoscopic cholecystectomy. Following the insertion of the laparoscope into the abdominal cavity, the patient experienced a cardiac arrhythmia and the procedure was terminated. The patient experienced a potentially compensable event resulting in an incident report. Which department may request to see the patient's record?
- a. Pediatrics
  - b. Risk Management
  - c. Surgical Supply
  - d. Dietary Services

**Domain VIII** *Compliance*

90. Coding compliance policies should include:
- a. Facility-specific documentation requirements
  - b. Payer denials
  - c. Schedules for record retention
  - d. Suggested codes for optimizing reimbursement



91. Under HIPAA Standards for Code Sets, the sets of codes used to encode the diagnoses and procedures, data elements, and medical concepts must be used in:
- Paper claims only
  - Electronic transactions only
  - Outpatient claims only
  - Inpatient claims only
92. A patient has an inpatient discharge with principal diagnosis of either peptic ulcer or cholecystitis documented on the history and physical. Both are equally treated and well documented. A coder should:
- Code based on the circumstances of admission and if both are equally treated, code either as principal
  - Use a code from the Findings Abnormal category
  - Code to the most severe symptom
  - Code shoulder pain, peptic ulcer, cholecystitis
93. A 75-year-old woman is admitted to the hospital after tripping and falling at home. She underwent an open reduction with internal fixation of the femur. Which of the following would be important to capture in addition to diagnostic codes?
- External cause codes for Cause of Injury and Place of Occurrence
  - External cause codes for Cause of Injury, Place of Occurrence, Activity, and Status
  - External cause codes for Cause of Injury, Place of Occurrence, and Activity
  - External cause codes for Cause of Injury only
94. MS-DRG assignment is not based on information that includes \_\_\_\_\_.
- Diagnoses (principal and secondary) and surgical procedures (principal and secondary)
  - Diagnostic-related group (DRG) weight and hospital base rate
  - Discharge disposition or status and Presence of major or other complications and comorbidities (MCC or CC as secondary diagnosis)
  - laboratory results
95. The actual payment the hospital is reimbursed is potentially based on all of the following:
- The hospital is not an approved teaching hospital
  - It is one of many community hospitals
  - Hospital base rate, discharge disposition, adjustment for low-income patients, approved teaching hospital, and sole community hospital
  - Physician average evaluation and management level
96. Quality improvement organizations (QIOs) are responsible to which of the following?
- Records from hospitals in rural hospitals
  - Disproportionate share hospital adjustment for low income patients
  - Utilization Reviews for hospital requested higher weighted DRG payments and quality of care reviews due to complaints
  - Hospital DRG weight review



97. Medical necessity is defined by which factors?

- a. Nonmedical health factors
- b. The likelihood that the service will benefit the patient and established effectiveness to treat the patient's condition
- c. Relative value scale
- d. Hospital Base Rate for a diagnosis



## Multiple Choice Exam 1 Answers

1.	26.	51.	76.
2.	27.	52.	77.
3.	28.	53.	78.
4.	29.	54.	79.
5.	30.	55.	80.
6.	31.	56.	81.
7.	32.	57.	82.
8.	33.	58.	83.
9.	34.	59.	84.
10.	35.	60.	85.
11.	36.	61.	86.
12.	37.	62.	87.
13.	38.	63.	88.
14.	39.	64.	89.
15.	40.	65.	90.
16.	41.	66.	91.
17.	42.	67.	92.
18.	43.	68.	93.
19.	44.	69.	94.
20.	45.	70.	95.
21.	46.	71.	96.
22.	47.	72.	97.
23.	48.	73.	
24.	49.	74.	
25.	50.	75.	



# PRACTICE EXAM 1

## CASE STUDIES



*Note: Review the Procedures for Coding Medical Record Cases for the CCS Examination in the Introduction of this book.*

## **SAME DAY SURGERY SUMMARY—PATIENT 1**

### **HISTORY AND PHYSICAL EXAMINATION**

**REASON FOR ADMISSION:** Breast mass

**HISTORY OF PRESENT ILLNESS:** The patient is a 57-year-old woman who had a routine mammogram performed last week. A lump was noted in the upper, outer quadrant of the right breast, about 1.2 cm in size. The patient was referred to me. After an explanation to the patient about the condition, a needle localization breast biopsy was performed which revealed intraductal carcinoma in situ.

**PAST MEDICAL HISTORY:** Noncontributory

**ALLERGIES:** None known

**CHRONIC MEDICATIONS:** None

**SOCIAL HISTORY:** The patient is a 57-year-old female who is married and lives with her husband. She is a nondrinker and a nonsmoker.

**REVIEW OF SYSTEMS:** The patient has normal bowels. There is no hematuria or dysuria. The patient has had two colds in the past 6 weeks. She states that she has been having some difficulty sleeping because of worry over this breast mass.

**PHYSICAL EXAMINATION:** This is a well-developed, well-nourished 57-year-old female who appears younger than her stated age.

**HEENT:** PERRLA with supple neck

**LUNGS:** The lungs are clear to percussion and auscultation.

**CHEST:** The heart has normal rhythm and pulse. There is a mass in the right breast.

**ABDOMEN:** Abdomen reveals no masses; bowel sounds are heard.

**EXTREMITIES:** Extremities reveal no edema.

**IMPRESSION:** Intraductal carcinoma, upper outer quadrant, right breast

**PLAN:** The patient came back to the office yesterday morning with her husband. The situation was explained to them. Since this is an intraductal carcinoma in situ, Lumpectomy will be performed and sentinel node dissection will be carried out. Whether the patient needs further treatment or not depends on the findings of the permanent sections of the specimen. The patient and her husband understand the situation very well and agreed to proceed with surgery.



## OPERATIVE REPORT—PATIENT 1

**PREOPERATIVE DIAGNOSIS:** Intraductal carcinoma in situ, upper outer quadrant, right breast

**POSTOPERATIVE DIAGNOSIS:** Intraductal carcinoma in situ, upper outer quadrant, right breast

**OPERATION:** Lumpectomy and sentinel right axillary lymph node dissection

**ANESTHESIA:** General anesthesia with laryngeal intubation

**PROCEDURE:** After obtaining the informed consent, the patient was brought into the operating room and placed on the table in the supine position. General anesthesia with laryngeal intubation was conducted smoothly. The skin over the right chest and right arm was prepped and draped in the usual sterile manner. The intended incision line was marked with a marking pen. The radioactive isotope for the sentinel node dissection was injected. The breast tissue was massaged. Five minutes were then allowed to pass before the incision was made.

The incision was made with excision of the previous incisional scar. The lymphatics were identified and dissected. The suspicious right axillary sentinel nodes were dissected. Then the lumpectomy was performed with upper and lower skin flaps. The dissection of the breast tissue and subcutaneous tissue to raise the two flaps was conducted smoothly. A large lump was dissected and the dissection carried to the pectoralis muscles. The big lump was removed completely. Hemostasis was confirmed by cauterization. The wound was then irrigated with copious amounts of warm water solution. The specimen was sent to pathology and the sentinel nodes were sent separately to pathology. The wound was then closed in layers using 2-0 Vicryl for the deeper layer, 3-0 Vicryl for the subcutaneous tissue, and 4-0 Vicryl for the skin.

The patient tolerated the whole procedure very well and was sent to the recovery room in stable condition after extubation.

Blood loss was minimal. Sponge and needle counts were correct. No drain was left. The specimens were sent to pathology.



**PATHOLOGY REPORT—PATIENT 1**

**DATE:** 8/3

**SPECIMEN:** Breast lump and lymph node

**GROSS DESCRIPTION:** The specimen is submitted as breast and lymphatic tissue. It consists of breast tissue measuring 2.0 cm, 1.5 cm, 1.0 cm.

**DIAGNOSIS:** Intraductal carcinoma in situ

*Enter one diagnosis code and three procedure codes.*

**PDX**

**PP1**

**PR2**

**PR3**



**SAME-DAY SURGERY SUMMARY—PATIENT 2****HISTORY AND PHYSICAL EXAMINATION**

**DATE:** 1/29

**HISTORY OF PRESENT ILLNESS:** This is a 62-year-old male with progressive painful blurring of vision due to aphakic bullous keratopathy with moderate stage glaucoma in the left eye. He has undergone previous Molteno implant with poor vision and pain due to ruptured bulla. The patient is admitted for transplant, vitrectomy and lens implantation at this time.

**PAST MEDICAL HISTORY:** The patient has angina and COPD. There have been no recent episodes of chest pain or shortness of breath. The patient also underwent a prostatectomy six years ago for prostatic carcinoma.

**ALLERGIES:** None known

**CHRONIC MEDICATIONS:** Ventolin and nitroglycerin as needed for chest pain

**SOCIAL HISTORY:** The patient is a 62-year-old male who is married and lives with his wife. He has 5 grandchildren. He is a nondrinker and a nonsmoker.

**REVIEW OF SYSTEMS:** The patient has normal bowels. He has had no problems with his urine since his prostatectomy. There is no hematuria or dysuria. The patient has had two colds in the past six weeks. He states that he has been having some difficulty sleeping because of the pain in his shoulder. This has limited some of the activity that he normally does, such as golf.

**PHYSICAL EXAMINATION:** This is a well-developed, well-nourished 62-year-old male who appears younger than his stated age.

**HEENT:** Aphakic, neck supple

**CHEST:** The lungs are clear to percussion and auscultation. The heart has normal rhythm and pulse.

**ABDOMEN:** Abdomen reveals no masses; bowel sounds are heard.

**EXTREMITIES:** Extremities reveal no edema.



## OPERATIVE REPORT—PATIENT 2

### PREOPERATIVE DIAGNOSES:

1. Aphakic bullous keratopathy left eye
2. Open-angle glaucoma left eye
3. Chronic iritis bilateral

### POSTOPERATIVE DIAGNOSES:

1. Aphakic bullous keratopathy left eye
2. Open-angle glaucoma left eye
3. Chronic iritis bilateral

### OPERATION:

1. Aphakic penetrating keratoplasty left eye
2. Posterior chamber intraocular lens scleral implant left eye
3. Open-sky mechanical automated vitrectomy left eye

**ANESTHESIA:** Retrobulbar block, monitored anesthesia care

**COMPLICATIONS:** None

**INDICATIONS:** This is a 62-year-old gentleman with progressive painful blurring of vision due to aphakic bullous keratopathy with glaucoma. He has undergone previous Molteno implant with poor vision and pain due to ruptured bulla. The patient is admitted for transplant vitrectomy and lens implantation of the left eye at this time. After informed consent, the patient agreed to the benefits and risks of surgery.

**PROCEDURE DESCRIPTION:** The patient was taken to the operating room. Under monitored anesthesia care, he was given a retrobulbar block in the standard fashion for a total of 4 cc of a 50/50 mixture 0.75% Marcaine and 4% lidocaine with Wydase.

After ensuring adequate anesthesia as well as akinesia, the patient was prepped and draped in the usual sterile ophthalmologic fashion. A wire lid speculum was inserted, and a small conjunctival peritomy was made at the two o'clock and ten o'clock hour positions to prepare for half-thickness scleral flaps for suturing a scleral-supported lens in the left eye. A Flieringa ring was then attached in the standard fashion using four interrupted 5-0 Dacron sutures. Attention was then placed to the back Mayo, and a 7.75-mm donor button was harvested, epithelial side down, in the standard fashion. Routine surveillance cultures were sent, and the donor button was placed on the Mayo stand in a Petri dish. Attention was then placed on the donor's cornea, and using a Barron-Hessburg trephine device, a 7.50-mm button was harvested under viscoelastic support. Corneoscleral scissors were used to the left and right respectively to remove the button in toto. Vitrectomy was then performed due to prolapsing vitreous, and an attempt to reposition the iris was made. However, due to loss of iris material during prior surgeries, I was unable to close the sphincter defect. After completing the vitrectomy, a scleral-supported CZ70VD 7-mm lens was secured using a 10-0 Prolene suture at the ten and two o'clock hour positions. Scleral flaps were then closed over the 10-0 Prolene to maintain a tight closure. The button was then sewn into position using 16 interrupted 10-0 nylon sutures in the standard fashion. All the knots were cut short and buried in the recipient side of the host junction. A final check to make sure the chamber was watertight was unremarkable, and the Flieringa ring was removed followed by the bridle sutures. Subconjunctival Ancef and Celestone were placed, and a bandage contact lens was placed on the eye.

The patient was taken to the recovery room in good repair without complications of the above procedure.



Enter six diagnosis codes and three procedure codes.

---

PDX

DX2

DX3

DX4

DX5

DX6

PP1

PR2

PR3



## Emergency Department E/M Mapping Scenario for Emergency Department Case 3

Code the procedures that are done in the emergency department as well as the E/M code derived from the mapping scenario.

### Point Value Key

Level 1 = 1–20

Level 2 = 21–35

Level 3 = 36–47

Level 4 = 48–60

Level 5 = > 61

Critical Care > 61 with constant physician attendance

### CPT Codes

Level 1 99281 99281–25 with procedure/laboratory/radiology

Level 2 99282 99282–25 with procedure/laboratory/radiology

Level 3 99283 99283–25 with procedure/laboratory/radiology

Level 4 99284 99284–25 with procedure/laboratory/radiology

Level 5 99285 99285–25 with procedure/laboratory/radiology

Emergency Department Acuity Points					
	5	10	15	20	25
Meds Given	1–2	3–5	6–7	8–9	> 10
Extent of Hx	Brief	PF	EPF	Detail	Comprehensive
Extent of Examination	Brief	PF	EPF	Detail	Comprehensive
Number of Tests Ordered	0–1	2–3	4–5	6–7	> 8
Supplies Used	1	2–3	4–5	6–7	> 8



**EMERGENCY DEPARTMENT RECORD — PATIENT 3****DATE OF ADMISSION:** 6/17**DATE OF DISCHARGE:** 6/17**HISTORY (Problem Focused):**

**ADMISSION HISTORY:** This is a 29-year-old Asian female. She was walking down her steps when she fell. The patient complains of pain in the right arm.

**ALLERGIES:** Penicillin

**CHRONIC MEDICATIONS:** Normally takes no drugs but has been taking ibuprofen every 6 hours because of painful arm.

**FAMILY HISTORY:** Noncontributory

**SOCIAL HISTORY:** The patient smokes one pack of cigarettes per day. She drinks one drink per day.

**REVIEW OF SYSTEMS:** The patient had hives the last time she took penicillin. Her cardiovascular, genitourinary, and gastrointestinal systems are negative.

**PHYSICAL EXAMINATION (Expanded Problem Focused):**

**GENERAL APPEARANCE:** This is an alert cooperative female in no acute distress.

**HEENT:** PERRLA, extraocular movements are full

**NECK:** Supple

**CHEST:** Lungs are clear. Heart has normal sinus rhythm.

**ABDOMEN:** Soft and nontender, no organomegaly

**EXTREMITIES:** Examination of the arm reveals painful movement.

**LABORATORY AND X-RAY DATA:** Urinalysis is normal; EKG normal; chest x-ray is normal; CBC and diff show no abnormalities; x-ray of the right arm revealed a fracture of the shaft of the humerus.

**IMPRESSION:** Fracture of the mid-shaft of the right humerus

**PLAN:** Reduction fracture of the humerus

**TREATMENT:** Following administration of conscious sedation, the patient's humeral fracture was reduced and a cast applied. One fracture tray was used.

**DISCHARGE DIAGNOSIS:** Fracture of the left shaft of the humerus

**INSTRUCTIONS ON DISCHARGE:** The patient is instructed to make an appointment with the orthopedic clinic in 3 days, to take one Percocet every 4 hours as needed for pain as per the label. Call the ER doctor if swelling or blue color of the fingers occurs. The patient is also counseled to stop smoking and was instructed to make an appointment with her primary care physician to discuss smoking cessation.



**Practice Exam 1 Case Studies**

*Enter two diagnosis codes and two procedure codes.*

---

**PDX**

**DX2**

**PP1**

**PR2**



**AMBULATORY RECORD — PATIENT 4**

Right and left heart catheterization and coronary angiography

**PROCEDURE:** After obtaining informed consent the patient was taken to the cardiac catheterization laboratory.

The right groin was prepped and draped in the usual fashion and 2% Xylocaine was used to anesthetize. 6-French sheaths were introduced into the right femoral artery and vein and a 6-French multipurpose catheter was used for the heart catheterization, coronary angiography, and ventricular angiography. Right heart pressures and cardiac outputs were measured. A pigtail catheter was inserted into the left ventricular cavity and ventricular pressures obtained. Angiography of the right coronary artery was performed. Left ventricular angiography and aortic root angiography was performed. The patient tolerated the procedure well without complications.

**DIAGNOSIS:** Arteriosclerotic coronary artery disease

Enter one diagnosis code and two procedure codes.

PTX

PP1

PP2



## INPATIENT RECORD — PATIENT 5

### DISCHARGE SUMMARY

**DATE OF ADMISSION:** 2/3

**DATE OF DISCHARGE:** 2/5

**DISCHARGE DIAGNOSIS:** Full-term pregnancy—delivered liveborn male infant

Patient started labor spontaneously three days before her due date. She was brought to the hospital by automobile. Labor progressed for a while but then contractions became fewer and she delivered soon after. A midline episiotomy was done. Membranes and placenta were complete. There was some bleeding but not excessively. Patient made an uneventful recovery.

## HISTORY AND PHYSICAL EXAMINATION — PATIENT 5

**ADMITTED:** 2/3

**REASON FOR ADMISSION:** Full-term pregnancy at 38 weeks

**PAST MEDICAL HISTORY:** Previous deliveries normal and mitral valve prolapse

**ALLERGIES:** None known

**CHRONIC MEDICATIONS:** None

**FAMILY HISTORY:** Heart disease—father

**SOCIAL HISTORY:** The patient is married and has one other child living with her.

### REVIEW OF SYSTEMS:

**SKIN:** Normal

**HEAD-SCALP:** Normal

**EYES:** Normal

**ENT:** Normal

**NECK:** Normal

**BREASTS:** Normal

**THORAX:** Normal

**LUNGS:** Normal

**HEART:** Slight midsystolic click with late systolic murmur II/VI

**ABDOMEN:** Normal

**IMPRESSION:** Good health with term pregnancy. History of mitral valve prolapse—asymptomatic.



**PROGRESS NOTES—PATIENT 5**

DATE	NOTE
2/3	Admit to Labor and Delivery. MVP stable. Patient progressing well. Delivered at 1:15 p.m. one full-term male infant.
2/4	Patient doing well. Mitral valve prolapse stable. The perineum is clean and dry, incision intact.
2/5	Will discharge to home

**PHYSICIAN'S ORDERS—PATIENT 5**

DATE	ORDER
2/3	Admit to Labor and Delivery 1,000 cc 5% D/LR May ambulate Type and screen CBC May have ice chips
2/5	Discharge patient to home.

**DELIVERY RECORD—PATIENT 5**

DATE: 2/3

The patient was 3 cm dilated when admitted. The duration of the first stage of labor was 6 hours, second stage was 14 minutes, third stage was 5 minutes. She was given local anesthesia. An episiotomy was performed with repair. There were no lacerations. The cord was wrapped once around the baby's neck, but did not cause compression. The mother and liveborn baby were discharged from the delivery room in good condition.



**LABORATORY REPORT—PATIENT 5****HEMATOLOGY**

DATE: 2/3

Specimen	Results	Normal Values
WBC	5.2	4.3–11.0
RBC	4.9	4.5–5.9
HGB	13.8	13.5–17.5
HCT	45	41–52
MCV	93	80–100
MCHC	41	31–57
PLT	255	150–450

*Enter five diagnosis codes and two procedure codes.*

PDX	<input type="text"/>
DX2	<input type="text"/>
DX3	<input type="text"/>
DX4	<input type="text"/>
DX5	<input type="text"/>
PP1	<input type="text"/>
PP2	<input type="text"/>



**INPATIENT RECORD—PATIENT 6****DISCHARGE SUMMARY****DATE OF ADMISSION:** 1/31**DATE OF DISCHARGE:** 2/3**DISCHARGE DIAGNOSIS:** Right lower lobe pneumonia due to gram-negative bacteria, resistant to erythromycin**ADMISSION HISTORY:** This is a 56-year-old insulin-requiring diabetic female whose diabetes is out of control whom we have been following for hypertension, degenerative joint disease, aortic stenosis and diabetic retinopathy. Over the past three days she has noted increased cough and chest congestion with a fever of approximately 102 degrees. She was found to have a right lower lobe infiltrate and was started on therapy with erythromycin. Despite initial therapy, the patient's clinical status has worsened over the past 24 hours.**COURSE IN HOSPITAL:** Patient was admitted with the diagnosis of right lower lobe pneumonia. She was begun on intravenous ceftriaxone. Because of difficulties with venous access, patient was switched to intramuscular ceftriaxone on her third hospital day.

By 2/3 the patient was afebrile and her cough had diminished. Her blood pressure was well controlled at 140/74.

**INSTRUCTIONS ON DISCHARGE:** Follow up with me by phone in three days and in my office in two weeks. Repeat chest x-ray to be done then.**MEDICATIONS:**

1. Calan SR 180 mg b.i.d.
2. Zestril 20 mg PO q. a.m.
3. NPH Insulin, 30 units, sub q., a.m.
4. Levoquin 500 mg PO daily ×10 days
5. Celebrex 100 mg PO b.i.d.



## HISTORY AND PHYSICAL EXAMINATION—PATIENT 6

**ADMITTED:** 1/31

**REASON FOR ADMISSION:** Physical examination on admission revealed a well-developed, acutely ill-appearing black female.

**HISTORY OF PRESENT ILLNESS:** A 56-year-old diabetic followed for hypertension and diabetic retinopathy. Over the past three days she has noted increased cough and chest congestion with a fever of approximately 102 degrees. She was found to have a right lower lobe infiltrate and was begun on therapy with erythromycin. Despite initial therapy, the patient's clinical status worsened over the past 24 hours and hospitalization was recommended.

**PAST MEDICAL HISTORY:** Hypertension, degenerative joint disease in both knees, and moderate aortic stenosis

**ALLERGIES:** Dust

**CHRONIC MEDICATIONS:** CalanSR 180 mg po b.i.d., Insulin (NPH), Zestril 20 mg PO daily, Celebrex 100 mg PO b.i.d.

**FAMILY HISTORY:** Notable for hypertension in mother

**SOCIAL HISTORY:** Noncontributory

### PHYSICAL EXAMINATION:

**GENERAL APPEARANCE:** The patient is a well-developed black female in moderate distress.

**VITAL SIGNS:** T 102, P 80, R 16, BP 150/80

**SKIN:** Warm and dry

**HEENT:** Significant for mildly inflamed mucous membranes. Retinopathy evident in both eyes.

**NECK:** Supple. Symmetrical with no bruits

**LUNGS:** Coarse rhonchi bilaterally, right greater than left

**HEART:** Regular rate and rhythm, positive S1, positive III/VI SEM

**ABDOMEN:** Soft, nontender, no mass

**GENITALIA:** Deferred

**RECTAL:** Deferred

**EXTREMITIES:** No edema

**NEUROLOGIC:** Normal



**HISTORY AND PHYSICAL EXAMINATION — PATIENT 6****LABORATORY DATA:**

1. EKG: NSR, widespread ST-T wave abnormalities, LV hypertrophy
2. CBC: Hgb 13, Hct 38, WBC 12.8
3. Glucose: 281
4. Urinalysis: Unremarkable
5. Sputum: Gram stain—a few WBCs, moderate gram-negative rods

**IMPRESSION:**

1. Right lower lobe pneumonia possibly due to gram-negative bacteria
2. Diabetes mellitus on insulin—uncontrolled
3. Hypertension—stable
4. Degenerative joint disease—stable
5. Moderate aortic stenosis

**PLAN:** Admit, IV antibiotics for pneumonia. Monitor blood sugars.

**PROGRESS NOTES — PATIENT 6**

DATE	NOTE
1/31	Patient admitted for cough associated with increased temperature with chest x-ray indicative of pneumonia. Will obtain sputum culture and begin on ceftriaxone. Will monitor blood pressure and blood sugars. Will use sliding scale to bring blood sugar into control. Patient with recent echocardiogram as outpatient that showed stable aortic stenosis.
2/1	The patient is responding well. Will request diabetic education nurse to meet with her and set up an appointment for classes following this admission.
2/2	Sputum culture reveals gram-negative bacteria as suspected. Patient's temperature is down. Patient resting comfortably. Blood sugar better.
2/3	Blood sugar with increasing control today. The importance of appropriate diet emphasized. Will discharge with p.o. antibiotics.



**PHYSICIAN'S ORDERS—PATIENT 6**

DATE	ORDER
1/31/20XX	Admit to 3 South DX: Pneumonia Please give ceftriaxone 1 g q 8 hours IV ADA diet CBC and SMA CalanSR 50 mg in a.m. with orange juice Zestril 2 in a.m. Celebrex 100 mg po BID Accucheck before meals and before bedtime Chest x-ray Sliding scale for insulin as follows: Below 120 give 4 units of regular 120–200 give 6 units of regular insulin 200–300 give 8 units of regular insulin Above 300, call physician
2/1/20XX	Change insulin to 40 NPH units sq in a.m. today. Consult diabetic nurse to see patient and set up classes following admission.
2/2/20XX	Continue insulin to 40 NPH units sq in a.m. today.
2/2/20XX	D/C IV and switch to ceftriaxone 1 g IM q. 24 hrs
2/3/20XX	Discharge to home.



**LABORATORY REPORTS—PATIENT 6****MICROBIOLOGY**

DATE	TEST TYPE
1/31/20XX	SOURCE:
	SITE:
	GRAM STAIN RESULTS: Sputum
	CULTURE RESULTS: Slight WBCs, Slight Epis
	Many gram-negative rods
	sl. gram-negative diplococci
	sl. gram-positive cocci in clusters
	SUSCEPTIBILITY: S
	AMPICILLIN S
	CEFAZOLIN S
	CEFOTAXIME S
	CEFTRIAZONE S
	CEFUROXIME S
	CEPHALOTHIN S
	CIPROFLOXACIN S
	ERYTHROMYCIN R
	GENTAMICIN S
	OXACILLIN S
	PENICILLIN S
	PIPERACILLIN S
	TETRACYCLINE S
	TOBRAMYCIN S
	TRIMETH/SULF S
	VANCOMYCIN S

S = SUSCEPTIBLE

R = RESISTANT

I = INTERMEDIATE

M = MODERATELY SUSCEP

**RADIOLOGY REPORT—PATIENT 6**

DATE: 1/31/20XX

HISTORY DIAGNOSIS: Pneumonia

FINDINGS: There is slight overexpansion of the lungs. The pulmonary vasculature is normal. The heart is not enlarged. There is lower lobe infiltrate in the right lung.

IMPRESSION: Right lower lobe pneumonia



## EKG REPORT—PATIENT 6

DATE: 1/31/20XX

DIAGNOSIS: Pneumonia

INTERPRETATION: EKG: NSR, widespread ST-T wave abnormalities, LV hypertrophy

## LABORATORY REPORT—PATIENT 6

### CHEMISTRY

DATE: 1/31/20XX

Specimen	Results	Normal Values
GLUC	281 H	70–110
CREAT	0.67	0.5–1.5
NA	142	136–146
K	4.8	3.5–5.5
CL	108	95–110
CO <sub>2</sub>	29	24–32
CA	9.5	8.4–10.5
PHOS	3.6	2.5–4.4
MG	2.8	1.6–3.0
T BILI	1.0	0.2–1.2
D BILI	0.3	0.0–0.5
PROTEIN	6.5	6.0–8.0
ALBUMIN	5.1	5.0–5.5
AST	38	0–40
ALT	54	30–65
GGT	50	15–85
LD	180	100–190
ALK PHOS	102	50–136
URIC ACID	4.5	2.2–7.7
CHOL	89	0–200
TRIG	101	10–160



**LABORATORY REPORT—PATIENT 6 (continued)****URINALYSIS—PATIENT 6**

DATE: 1/31

Test	Result	Ref Range
SP GRAVITY	1.007	1.005–1.035
PH	7.0	5–7
PROT	NEG	NEG
GLUC	NEG	NEG
KETONES	NEG	NEG
BILI	NEG	NEG
BLOOD	NEG	NEG
LEU EST	NEG	NEG
NITRATES	NEG	NEG
RED SUBS	NEG	NEG

**HEMATOLOGY—PATIENT 6**

DATE: 1/31

Specimen	Results	Normal Values
WBC	12.8 H	4.3–11.0
RBC	5.5	4.5–5.9
HGB	13.0 L	13.5–17.5
HCT	38 L	41–52
MCV	90	80–100
MCHC	41	31–57
PLT	251	150–450



**BLOOD GLUCOSE MONITORING RECORD — PATIENT 6**

1/31/20XX	11:00 a.m.	310
	4:00 p.m.	300
	9:00 p.m.	290
2/1/20XX	7:00 a.m.	150
	11:00 a.m.	175
	4:00 p.m.	145
	9:00 p.m.	175
2/2/20XX	7:00 a.m.	140
	11:00 a.m.	135
	4:00 p.m.	160
	9:00 p.m.	150
2/3/20XX	7:00 a.m.	135
	11:00 a.m.	150
	4:00 p.m.	130

Enter eight diagnosis codes.

PDX

DX2

DX3

DX4

DX5

DX6

DX7

DX8



**INPATIENT RECORD—PATIENT 7****DISCHARGE SUMMARY****DATE OF ADMISSION:** 1/3**DATE OF DISCHARGE:** 1/7**DISCHARGE DIAGNOSIS:** Recurrent carcinoma, left lung

This is a 63-year-old female who is two years status post left upper lobe resection for adenocarcinoma. Pathology at that time revealed a positive bronchial margin of resection. She was treated with postop radiation and has done extremely well. She has remained asymptomatic with no postoperative difficulty. Follow-up serial CT scans have revealed a new lesion in the apical portion of the left lung, which on needle biopsy was positive for adenocarcinoma. She was admitted specifically for a left thoracotomy and possible pneumonectomy.

**PAST MEDICAL HISTORY:** Positive for tobacco abuse 2 PPD  $\times$  30 years in the past. Significant for a right parotidectomy and also significant for hypertension, degenerative joint disease of lumbar spine, and chronic pulmonary disease. The patient also suffered a stroke in the left brain with resulting right hemiparesis three years ago. Medications on discharge: Tenormin 25 mg once a day, Calan SR 240 mg twice a day, Moduretic one tablet q. day and K-Dur 10 meq q. day, Proventil MDI 2 puffs PO q.i.d. p.r.n., Azacort MDI 2 puffs PO t.i.d., Vioxx 25 mg PO daily.

**PHYSICAL EXAMINATION:** Revealed a well-healed right parotid incision. No supraclavicular adenopathy. She has a healed left posterior lateral thoracotomy scar. Impression is that of local recurrence, status post left upper lobectomy. She is to undergo a left pneumonectomy.

**OPERATIVE FINDINGS AND HOSPITAL COURSE:** There was a large mass in the remaining lung, extensive mediastinal fibrosis, bronchial margin free by frozen section. Following surgery she was placed in the intensive care unit postoperatively. The chest tube was removed on postoperative day number two.

She experienced some EKG changes consistent with acute nontransmural MI. Cardiology was consulted, and she was started on nitroglycerin and IV heparin. She was eventually weaned from her oxygen therapy.

She was started on regular diet and was discharged in good condition. Her wound was clean and dry.

**INSTRUCTIONS ON DISCHARGE:** Discharged home with instructions to follow up with cardiology next week. Also follow up with me in the office.



## HISTORY AND PHYSICAL EXAMINATION—PATIENT 7

**ADMITTED:** 1/3

**HISTORY OF PRESENT ILLNESS:** Patient is a 63-year-old right-handed female with history of recurrent adenocarcinoma of apical segment of left upper lobe of lung. She has received radiation therapy to her chest. She weighs 123 pounds. She also has chronic obstructive pulmonary disease.

**REVIEW OF SYSTEMS:** She can climb two flights of steps with minimal difficulties. She has a significant underbite. She has stiffness in lower spine, worse in the a.m. She has hypertension and took her Tenormin 25 mg, Calan SR 240 mg this a.m.

**PAST SURGICAL HISTORY:** She had a right parotidectomy seven years ago and was told they needed to use a "very small" ETT. Two years ago she underwent a left upper lobe resection at this facility. Previous medical records are being requested.

**ALLERGIES:** She is allergic to sulfa. Postoperatively last time she received Demerol. She also had hallucinations in the ICU for several days. She blames the hallucinations on the Demerol. The only allergy sign was hallucinations.

**PHYSICAL EXAMINATION:** Revealed a well-healed right parotid incision. No supraclavicular adenopathy. She has a healed left posterior lateral thoracotomy scar. Impression is that of local recurrence, status post left upper lobectomy. She is to undergo a left completion pneumonectomy, muscle flap coverage of bronchial stump. The patient has hemiparesis in the right extremities.

**IMPRESSION:** Recurrent carcinoma left lower lobe of lung

**PLAN:** Pneumonectomy of left lung. The patient is agreeable to general endotracheal anesthesia or the use of epidural narcotic. She is agreeable to postoperative ventilation if necessary.



**PROGRESS NOTES—PATIENT 7**

DATE	NOTE
1/3	<p>Attending Physician: Admit for recurrent lung carcinoma, s/p radiation therapy. Consent signed for pneumonectomy. Epidural morphine usage postop explained to and discussed with the patient. She is agreeable.</p> <p>Anesthesia Preop: Patient evaluated and examined. General anesthesia chosen. Patient agrees. Will provide postop epidural morphine for pain management s/p thoracotomy.</p> <p>Attending Physician:</p> <p>Procedure Note:</p> <p>Preop Dx: Local recurrence of carcinoma of the lung</p> <p>Postop Dx: Same</p> <p>Procedure: Pneumonectomy with muscle flap coverage of bronchial stump</p> <p>Complications: R/O Intraop MI</p> <p>Anesthesia Postop: Patient in stable condition following GEA with possible intraoperative MI due to hypotension. CPK to be evaluated as available. Patient comfortable with epidural morphine. No adverse effects of anesthesia experienced.</p>
1/4	<p>Attending Physician: Path report confirms recurrent adenocarcinoma. Patient stable but with persistent hypotension resolving slowly—will consult cardiology. CPK MB positive. Incision clean and dry. COPD stable, arthritis stable.</p> <p>Cardiology Consult: The patient has resolving intraoperative myocardial infarction. Will continue to monitor.</p>
1/5	<p>Attending Physician: Looks and feels well, weaning off morphine. Blood pressure stable. Left pleural space expanding and filling space. Chest tube removed, epidural cath removed.</p> <p>Cardiology Consult: The patient looking and feeling better.</p>
1/6	<p>Attending Physician: Patient stable for discharge in a.m. Cardiology to follow.</p>

**OPERATIVE REPORT—PATIENT 7**

DATE: 1/3

OPERATION: Pneumonectomy

PREOPERATIVE DIAGNOSIS: Recurrent carcinoma of left lung

POSTOPERATIVE DIAGNOSIS: Same

ANESTHESIA: General endotracheal anesthesia

OPERATIVE FINDINGS: There was a large mass in the left lower lobe.

The patient was prepped and draped in the usual fashion. Following thoracotomy the left lung was completely removed. A muscle flap coverage was used for the bronchial stump. During the procedure the patient experienced an episode of hypotension, watch for resulting MI. The patient was fluid resuscitated and sent to the recovery room in good condition.



**PATHOLOGY REPORT—PATIENT 7****DATE:** 1/3**SPECIMEN:** Left lung, resected**CLINICAL DATA:** This is a 63-year-old female with recurrent disease on CT scan.**DIAGNOSIS:** Adenocarcinoma of the apical portion of the lung, bronchial margin is free of disease.**PHYSICIAN'S ORDERS—PATIENT 7****DATE      ORDER**

- 1/3      Admit to surgical floor  
           Standard orders for thoracotomy  
           Tenormin 25 mg q.d.  
           Calan SR 240 mg twice a day  
           Moduretic one tab. q.d.  
           K-Dur 10 meq q.d. in a.m.  
           Vioxx 25 mg PO daily in a.m.  
           Proventil (albuterol) MDI 2 puffs PO q.i.d.  
           Azmacort MDI 2 puffs PO q.i.d.  
           CBC  
           Postop Orders:  
           Admit to ICU  
           Serial CPK stat  
           CBC  
           SMA 12  
           Anesthesia:  
           Morphine pump ad lib  
           D5NSS 100 cc/hr  
           Strict input and output documentation
- 1/4      Attending MD: Consult Cardiology  
           Cardiology: Lasix 20 mg b.i.d. PO  
           D/C IV
- 1/5      Transfer to floor  
           Continue meds
- 1/6      Discharge patient in a.m.



**LABORATORY REPORTS—PATIENT 7****HEMATOLOGY**

DATE: 1/3

Specimen	Results	Normal Values
WBC	5.7	4.3–11.0
RBC	5.0	4.5–5.9
HGB	15.6	13.5–17.5
HCT	47	41–52
MCV	89	80–100
MCHC	42	31–57
PLT	300	150–450

**HEMATOLOGY—PATIENT 7**

DATE: 1/4

Specimen	Results	Normal Values
WBC	5.6	4.3–11.0
RBC	4.0 L	4.5–5.9
HGB	13.4 L	13.5–17.5
HCT	40 L	41–52
MCV	82	80–100
MCHC	33	31–57
PLT	200	150–450



**LABORATORY REPORTS—PATIENT 7 (continued)****CHEMISTRY—PATIENT 7**

DATE: 1/3

Specimen	Results	Normal Values
GLUC	90	70–110
BUN	27 H	8–25
CREAT	1.0	0.5–1.5
NA	138	136–146
K	4.0	3.5–5.5
CL	100	95–110
CO <sub>2</sub>	28	24–32
CA	8.9	8.4–10.5
PHOS	2.9	2.5–4.4
MG	2.0	1.6–3.0
T BILI	1.0	0.2–1.2
D BILI	0.04	0.0–0.5
PROTEIN	7.0	6.0–8.0
ALBUMIN	5.3	5.0–5.5
AST	35	0–40
ALT	50	30–65
MB	7 H, 15 H, 12 H, 9 H	0–5.0
CPK	221, 250 H, 275 H, 230	21–232

**RADIOLOGY REPORT—PATIENT 7**

DATE: 1/3

**CHEST X-RAY:** Reveals mass in the left lower lobe. There are surgical clips in the thorax from apparent previous surgery. The thoracic organs are midline and the vasculature is normal.

**IMPRESSION:** Carcinoma LLL, no congestive heart failure.

**RADIOLOGY REPORT—PATIENT 7**

DATE: 1/4

**CHEST X-RAY:** Reveals absence of left lung. Other architecture is normal other than postoperative changes. The thoracic organs are midline and the vasculature is normal.

**IMPRESSION:** Postop changes consistent with lobectomy; no congestive heart failure.



**EKG REPORT—PATIENT 7**

DATE: 1/3

Normal sinus rhythm

DATE: 1/4

There are nonspecific ST changes consistent with possible evolving myocardial infarction.

DATE: 1/5

Possible acute myocardial infarction, please correlate with other clinical findings.

*Enter ten diagnosis codes and one procedure code.*

PDX

DX2

DX3

DX4

DX5

DX6

DX7

DX8

DX9

DX10

PP1



## INPATIENT RECORD — PATIENT 8

### DISCHARGE SUMMARY

DATE OF ADMISSION: 4/19

DATE OF DISCHARGE: 4/24

### DISCHARGE DIAGNOSIS:

Acute inferior wall myocardial infarction (STEMI)

Hyperlipidemia

Complete heart block

Upper gastrointestinal hemorrhage

Arteriosclerotic heart disease

**ADMISSION HISTORY:** This is a 45-year-old white male with a history of hyperlipidemia and tobacco use. He presented to the hospital with an acute myocardial infarction. He was treated with peripheral intravenous TPA and had a reperfusion. The patient continued to have chest pain with an inferior ST elevation on EKG.

**COURSE IN HOSPITAL:** The patient sustained an acute myocardial infarction. The patient presented with an acute myocardial infarction and underwent catheterization. The patient was found to have stenosis of the mid-right coronary artery and right distal coronary artery. The left coronary branches have minimal noncritical disease. The left ventricular ejection fraction was approximately 45% with inferior wall hypokinesis.

The patient had a successful stent PTCA to the mid-RCA with a stent. I initially attempted to dilate with a balloon, but the results were inadequate and proceeded to place a 4.0-mm J&J stent. The patient continued to have anginal symptomatology and for this reason was taken to the OR for CABG x2. He did well after the CABG x2 without any anginal symptoms.

The patient also had gastrointestinal bleeding following the PTCA. The patient developed retching and hematemesis and anemia for which he required blood transfusion. The probable cause of the nausea and vomiting was a reaction to anesthesia. Upper endoscopy revealed no evidence of peptic ulcer disease.

At the present time the patient has been treated with aspirin and Ticlid and has been doing very well. The plan is to discharge him home with follow-up in my office next week.

**INSTRUCTIONS ON DISCHARGE:** Follow up in 1 week in my office. Medications include; aspirin 1 tablet per day, Ticlid 250 mg twice per day, Tagamet 400 mg twice per day and sublingual nitroglycerin as needed for chest pain. Condition upon discharge is stable. Activity is restricted until cardiac rehabilitation.



**HISTORY AND PHYSICAL EXAMINATION—PATIENT 8****ADMITTED:** 4/19

Acute inferior wall myocardial infarction (STEMI)

Complete heart block

Ventricular ectopy

Possible ASHD

**REASON FOR ADMISSION:** Pain in chest

**HISTORY OF PRESENT ILLNESS:** This is a pleasant 45-year-old male with a history of hyperlipidemia and previous tobacco use. He also has a family history of coronary artery disease. He denies any prior history of coronary artery disease, myocardial infarction, or CVAs. The patient has been essentially very healthy, except for occasional skipped heartbeat in the past for which he has never taken any medications. The patient is presently on no medications.

Two days ago, he started complaining of a dull chest ache that appeared to radiate to his left arm and lasted for a few minutes. He was brought to the emergency department and was noted to have an acute inferior myocardial infarction with complete heart block. I was consulted to evaluate the patient and proceeded with administration of TPA therapy and IV Atropine for complete heart block. At the present time the patient is in sinus rhythm and is presently receiving IV TPA. He denies any melena, hematochezia. Denies any shortness of breath, PND, orthopnea.

**PAST MEDICAL HISTORY:** He denies any history of hypertension or diabetes. He has a history of high cholesterol. He states that he had his cholesterol checked approximately 3 months ago and it was around 310. He used to smoke tobacco, one pack a day for 20 years. He quit smoking 6 months ago. He denies any history of coronary artery disease, myocardial infarction, or cerebrovascular accident.

He has a history of heart palpitations that he describes as skipped heartbeat in the past for which he is not taking any medications. He has never had an evaluation.

He has a history of kidney stones 2 years ago. He denies any history of peptic ulcer disease. He has a history of hemorrhoidal bleeding in the past. The last episode of bleeding was 6 or 7 months ago.

The patient denies any trauma or recent surgery.

**ALLERGIES:** Patient has no known drug allergies.

**CHRONIC MEDICATIONS:** None

**SOCIAL HISTORY:** He quit tobacco 6 months ago and denies alcohol abuse. He is a construction worker.

**REVIEW OF SYSTEMS:** Denies melena, hematochezia, hematemesis and he denies change in weight.

**PHYSICAL EXAMINATION:** This is a pleasant gentleman who appears slightly diaphoretic and is expressing having mild chest pain which is better from admission. He is presently receiving IV TPA. Vital signs are as follows: Blood pressure is 100/70; heart rate in the 80s. The neck shows no JVD, no carotid bruits. The lungs are clear and heart is regular rate with S4 gallop rhythm and no murmurs. The abdomen is soft and nontender. Extremities show no edema. The pulses of his femoral and dorsalis pedis are 2+ bilaterally. Neurological examination reveals an alert and oriented male  $\times 3$ .

**LABORATORY DATA:** SMA-7, sodium 138, potassium 3.7, BUN 7, creatinine 0.9. CBC showed a white blood cell count of 12. Hematocrit 37, hemoglobin 13. Platelet count is 312. His EKG showed complete heart block with significant ST elevation in the inferior leads with reciprocal changes in the anteroseptal leads, consistent with an acute inferior wall myocardial infarction. His chest x-ray is pending.



## HISTORY AND PHYSICAL EXAMINATION—PATIENT 8 (continued)

**IMPRESSION AND PLAN:** Acute myocardial infarction that appears to have started around 10:30 in the morning. He presented very early to the emergency department and was treated aggressively with intravenous TPA, intravenous aspirin, intravenous nitroglycerin.

We will continue the TPA and begin lidocaine. We will obtain cardiac enzymes and admit to CCU. The patient will need cardiac catheterization evaluated within 48 hours. If symptoms recur or patient does not have evidence of reperfusion will need urgent cardiac catheterization. If heart block occurs, will treat with intravenous Atropine on a p.r.n. basis. We will check a cholesterol and lipid profile in the hospital.

## CONSULTATION—PATIENT 8

**DATE:** 4/20

**CHIEF COMPLAINT:** Vomiting blood

**REVIEW OF SYSTEMS:** This 45-year-old white male was seen in consultation because of GI bleeding. The patient was admitted one day ago with acute myocardial infarction. He was treated with TPA and later went to cardiac catheterization where he was found to have a lesion of the mid RCA and distal RCA. Today the patient exhibited hematemesis with retching. He has no past history of ulcer disease or GI bleeding.

**PHYSICAL EXAMINATION:** Physical examination reveals an adult male lying in bed. Blood pressure is 120/80, pulses 60. HEENT: Pale. LUNGS: Clear. HEART: Regular rate and rhythm.

**ABDOMEN:** Benign.

**LABORATORY:** WBC is 12, hemoglobin 12, and hematocrit 37

**IMPRESSION:** Upper GI bleeding; rule out ulcer disease

**RECOMMENDATION:** We will perform an upper endoscopy to be performed today after informed consent is obtained. Further recommendations are to follow.



**PROGRESS NOTES — PATIENT 8**

DATE	NOTE
4/19	<p>This is a 45-year-old white male with a history of increased cholesterol, no prior coronary artery disease, MI or CVA. He presented with acute ischemia and heart block. He was given peripheral IV TPA; 1–1½ hours after TPA he had severe chest pain with elevated ST inferior leads. He was treated emergently for urgent catheter and PTCA.</p> <p>Post catheter/stent</p> <p>Procedure: Left heart catheter, coronary angio, left ventricular angiography</p> <p>Results: Normal LCA, 99% mid-RCA and 70 stenosis distal RCA, successful stent PTCA to mid-RCA with excellent results.</p>
4/20	<p>Cardiac: Patient continues to have pain. Will prepare for CABG when patient stable from GI perspective.</p> <p>GI: The patient experienced vomiting with flecks of blood after the cardiac catheterization. In light of apparent acute blood loss anemia will check for peptic ulcer. Probable reaction to anesthetics.</p> <p>Endoscopy Note:</p> <p>Preop: Gastrointestinal bleeding</p> <p>Postop: Gastrointestinal bleeding, etiology unknown</p> <p>Procedure: EGD</p> <p>Complications: None</p>
4/21	<p>Patient is scheduled for the OR today. Bleeding stable.</p> <p>OP Note:</p> <p>Preop: Critical stenosis of the mid-RCA and distal RCA</p> <p>Postop: Same</p> <p>Operation: CABG x2</p> <p>Complications: None</p>
4/22	<p>Patient recovering well. No chest pain or shortness of breath. The wound looks good. Will monitor acute blood loss anemia. The patient declines blood transfusion.</p>
4/23	<p>Chest clear, no chest pain, abdomen is soft with bowel sounds. Will transfer to the floor.</p>
4/24	<p>Wound healing well, patient OOB ambulating, no chest pain, lungs clear.</p>
4/25	<p>Will discharge today. Patient to follow up in 1 week.</p>



**PHYSICIAN'S ORDERS — PATIENT 8**

<b>DATE</b>	<b>ORDER</b>
4/19	Admit to CCU DX: Acute MI Cardiac enzymes q. 8 hours x3 CBC q. day x3 Meds: IV nitro @ 20 ug/min ASA 325 mg PO q. day Ticlid 250 mg PO b.i.d. Xanax 0.25 mg PO t.i.d. p.r.n. Restoril 30 mgs PO q. h p.r.n. for sleep Zantac 150 mg PO b.i.d. Daily PT and INR, PTT Diet: cardiac Vital signs q. 15 min x8 then q.i.d. Bed rest O2 at 2 L/min. NS at 150 cc/hr for 10 hours
4/20	Lopressor 25 mg PO t.i.d. Social worker consult re: payment issues CBC at 6 p.m. NPO for now Possible endoscopy Postendoscopy orders Watch VS Resume previous orders No heparin or TPA Hgb and Hct q. 6 h NS at 125 cc/hr D/C ASA, Ticlid for now Tagamet drip per protocol
4/21	Postop CABG orders: Continue present ventilator settings Daily electrolytes and CBC Morphine sulfate 15 mg PO q. 4h p.r.n. TED stockings Weigh patient daily Routine weaning in a.m. Lidocaine 3 g/min Continue Tagamet drip



**PHYSICIAN'S ORDERS—PATIENT 8 (continued)**

- 402 Decrease Lidocaine to 2 g/min  
Extubate patient as soon as weaned from ventilator  
Chest tubes to low suction  
Oxygen face mask 4 L/min  
Encourage incentive spirometry
- 403 Nutrition consult re: low-fat, low-salt diet  
D/C Tagamet drip to 250 mg q. 6  
Benadryl p.r.n. for sleep  
Consult cardiac rehab
- 404 D/C oxygen  
Consult home healthcare for postsurgical monitoring
- 405 Discharge patient

**OPERATIVE REPORT—PATIENT 8**

**DATE:** 4/21

**PREOPERATIVE DIAGNOSIS:** Critical stenosis of mid right coronary artery and distal right coronary artery

**POSTOPERATIVE DIAGNOSIS:** Same

**OPERATION:** Coronary bypass x2 using saphenous vein from aorta to right mid coronary artery and distal right coronary artery

**ANESTHESIA:** General

Under general anesthesia with arterial and pulmonary artery monitoring with sterile prep and drape, a sterile midline sternotomy was performed. The pericardium was opened. Purse-string sutures were placed in the ascending aorta and the right atrium. Extracorporeal circulation was undertaken at this point. The left greater saphenous vein was harvested from the right leg endoscopically. The patient was then placed on cardiopulmonary bypass. Cardioplegia was affected. The right coronary artery was dissected. Using a 6-0 Prolene suture an end-to-side anastomosis was created between the right mid coronary artery and the aorta. A second opening for end to side anastomosis was performed from the aorta to the distal right coronary artery. Following spontaneous contraction of the heart the patient was removed from cardiopulmonary bypass. Approximating the pericardium then began closure. Hemostasis was obtained. The sternum was approximated with a parasternal wire and fascia and skin with vicryl. The patient tolerated the procedure well and was transferred to the recovery room in stable condition.



## ENDOSCOPY REPORT—PATIENT 8

**DATE:** 4/20

Pre-gastrointestinal bleeding; rule out ulcers

Post-upper gastrointestinal bleeding; stomach and duodenum appear unremarkable

**MEDS:**

Demerol 50 mg IV

Versed 3 mg IV

**PROCEDURE:** Esophagogastroduodenoscopy

The patient was sedated and the scope inserted into the hypopharynx. There was fresh blood oozing from an area in the hiatal hernia pouch just below the gastroesophageal junction. The scope was passed farther down to visualize the remainder of the stomach and the duodenum. All areas appeared unremarkable with no other ulcers or lesions identified. The patient tolerated the procedure well. He did have some retching and vomiting after the scope was removed.



**CARDIAC CATHETERIZATION SUMMARY—PATIENT 8****DATE:** 4/19**PROCEDURE:**

Left heart catheterization

Left ventricular angiography

Coronary angiography

Stent to mid right coronary artery

After obtaining informed consent the patient was taken to the cardiac catheterization laboratory. He was prepped and draped in the usual fashion and 2% Xylocaine was used to anesthetize the right groin. 6-French sheaths were introduced into the right femoral artery and vein and a 6-French multipurpose catheter was used for left heart catheterization, coronary angiography and left ventricular angiography. I then proceeded to perform a Stent/PTCA to the mid RCA. A HTF wire was used to cross the RCA stenosis and a 4.0-mm J&J Stent was placed in the mid right coronary artery with excellent results. The final angiogram was obtained and the guiding catheterization was removed. The sheaths were securely sutured and the patient tolerated the procedure well without complications.

**FINDINGS:**

1. Left heart catheterization revealed an elevated resting left ventricular end-diastolic pressure of 18 mm Hg.
2. Left ventricular angiography revealed mild to moderate inferior wall hypokinesis with overall mildly depressed left ventricular systolic function and an estimated global ejection fraction of 45%.
3. Coronary angiography (using single catheter): The left coronary artery arises normally from the left sinus of Valsalva. The left main artery, left anterior descending coronary artery and its branches, and the circumflex artery and its branches have minimal irregularities.

The right coronary artery arises normally from the right sinus of Valsalva. There is a 99% very eccentric stenosis in the large mid right coronary artery and a 70% stenosis of the distal right coronary artery.

**IMPRESSION:** Arteriosclerotic coronary artery disease was found. There was a successful implantation of 4.0-mm J&J stent in the mid right coronary artery. This site was predilated with a 4.0-mm balloon, then followed by the insertion of a stent.

The mid right coronary artery shows excellent results. Pending the patient's progress we may have to proceed with CABG. The patient will remain on aspirin, Coumadin, and nitrates in the hospital. He will remain on intravenous heparin while his PT levels are adjusted.



**LABORATORY REPORTS—PATIENT 8****HEMATOLOGY****DATE:** 4/19

Specimen	Results	Normal Values
WBC	9.3	4.3–11.0
RBC	4.4 L	4.5–5.9
HGB	12.7 L	13.5–17.5
HCT	41	41–52
MCV	89	80–100
MCHC	33.9	31–57
PLT	Adequate	150–450

**HEMATOLOGY—PATIENT 8****DATE:** 4/20

Specimen	Results	Normal Values
WBC	7.7	4.3–11.0
RBC	4.4 L	4.5–5.9
HGB	12.0 L	13.5–17.5
HCT	41	41–52
MCV	89.6	80–100
MCHC	33.9	31–57
PLT	Adequate	150–450

**HEMATOLOGY—PATIENT 8****DATE:** 4/21

Specimen	Results	Normal Values
WBC	8.0	4.3–11.0
RBC	2.86 L	4.5–5.9
HGB	8.6 L	13.5–17.5
HCT	25.8 L	41–52
MCV	89	80–100
MCHC	33.9	31–57
PLT	Adequate	150–450



**LABORATORY REPORTS—PATIENT 8 (continued)****HEMATOLOGY—PATIENT 8**

DATE: 4/21

Specimen	Results	Normal Values
WBC	8.0	4.3–11.0
RBC	4.5	4.5–5.9
HGB	9.0 L	13.5–17.5
HCT	26.5 L	41–52
MCV	89	80–100
MCHC	33.9	31–57
PLT	Adequate	150–450

**HEMATOLOGY—PATIENT 8**

DATE: 4/21

Specimen	Results	Normal Values
WBC	8.0	4.3–11.0
RBC	4.5	4.5–5.9
HGB	9.3 L	13.5–17.5
HCT	27.3 L	41–52
MCV	89	80–100
MCHC	33.9	31–57
PLT	Adequate	150–450

**HEMATOLOGY—PATIENT 8**

DATE: 4/22

Specimen	Results	Normal Values
WBC	7.0	4.3–11.0
RBC	2.95 L	4.5–5.9
HGB	9.0 L	13.5–17.5
HCT	26.3 L	41–52
MCV	89	80–100
MCHC	33.9	31–57
PLT	Adequate	150–450



**LABORATORY REPORTS—PATIENT 8 (continued)****HEMATOLOGY—PATIENT 8**

DATE: 4/23

Specimen	Results	Normal Values
WBC	6.7	4.3–11.0
RBC	2.78 L	4.5–5.9
HGB	8.4 L	13.5–17.5
HCT	24.8 L	41–52
MCV	89.2	80–100
MCHC	34	31–57
PLT	Adequate	150–450

**HEMATOLOGY—PATIENT 8**

DATE: 4/24

Specimen	Results	Normal Values
WBC	8.0	4.3–11.0
RBC	4.3 L	4.5–5.9
HGB	9.2 L	13.5–17.5
HCT	27.0 L	41–52
MCV	89	80–100
MCHC	33.9	31–57
PLT	Adequate	150–450

**HEMATOLOGY—PATIENT 8**

DATE: 4/25

Specimen	Results	Normal Values
WBC	8.0	4.3–11.0
RBC	4.5	4.5–5.9
HGB	11.1 L	13.5–17.5
HCT	32 L	41–52
MCV	89	80–100
MCHC	33.9	31–57
PLT	Adequate	150–450



**LABORATORY REPORTS—PATIENT 8 (continued)****CHEMISTRY—PATIENT 8**

DATE: 4/19

Specimen	Results	Normal Values
GLUC	97	70–110
BUN	12	8–25
CREAT	1.0	0.5–1.5
NA	134 L	136–146
K	4.0	3.5–5.5
CL	109	95–110
CO <sub>2</sub>	33 H	24–32
CA	9.1	8.4–10.5
PHOS	3.0	2.5–4.4
MG	2.0	1.6–3.0
CK	1,702 H	38–120
LD	327 H	106–270
CK MB	93.7 H	0.0–3.0
Relative Index	5.5	
AST	36	0–40
ALT	44	30–65
GCT	70	15–85
LD	110	100–190
ALK PHOS	114	50–136
URIC ACID	6.0	2.2–7.7
CHOL	275 H	0–200
TRIG	140	10–160



**LABORATORY REPORTS—PATIENT 8 (continued)****CHEMISTRY—PATIENT 8****DATE:** 4/20

Specimen	Results	Normal Values
GLUC	97	70–110
BUN	12	8–25
CREAT	1.0	0.5–1.5
NA	134 L	136–146
K	5.6 H	3.5–5.5
CL	109	95–110
CO <sub>2</sub>	33 H	24–32
CA	9.1	8.4–10.5
PHOS	3.0	2.5–4.4
MG	2.0	1.6–3.0
CK	1,277 H	26–221
LD	345 H	106–210
CK MB	68.7 H	0.0–4.4
Relative Index	5.4	
AST	36	0–40
ALT	44	30–65
GCT	70	15–85
LD	110	100–190
ALK PHOS	114	50–136
URIC ACID	6.0	2.2–7.7
CHOL	275 H	0–200
TRIG	140	10–160



**LABORATORY REPORTS—PATIENT 8 (continued)****CHEMISTRY—PATIENT 8**

DATE: 4/21

Specimen	Results	Normal Values
GLUC	97	70–110
BUN	12	8–25
CREAT	1.0	0.5–1.5
NA	134 L	136–146
K	5.6 H	3.5–5.5
CL	109	95–110
CO <sub>2</sub>	33 H	24–32
CA	9.1	8.4–10.5
PHOS	3.0	2.5–4.4
MG	2.0	1.6–3.0
CK	1024 H	26–221
LD	372 H	106–210
CK MB	40.3 H	0.0–4.4
Relative Index	3.9	
AST	36	0–40
ALT	44	30–65
GCT	70	15–85
LD	110	100–190
ALK PHOS	114	50–136
URIC ACID	6.0	2.2–7.7
CHOL	275 H	0–200
TRIG	140	10–160

**RADIOLOGY REPORT—PATIENT 8**

DATE: 4/19

**CHEST, SUPINE:** There is no gross evidence of acute inflammatory disease or congestive heart failure.

**IMPRESSION:** No acute disease



### RADIOLOGY REPORT—PATIENT 8

**DATE:** 4/21

**DIAGNOSIS:** The patient appears to have undergone sternotomy. The heart appears normal. The endotracheal tube is in place as is the Swan-Ganz catheter.

**IMPRESSION:** Stable postoperative chest

### EKG REPORT—PATIENT 8

**DATE:** 4/19

**IMPRESSION:** Elevated ST changes. Cannot eliminate the possibility of ischemia. Complete heart block is also noted.

### EKG REPORT—PATIENT 8

**DATE:** 4/20

**IMPRESSION:** Acute inferior myocardial infarction. Complete heart block has resolved.

*Enter nine diagnosis codes and nine procedure codes.*

PDX	<input type="text"/>
DX2	<input type="text"/>
DX3	<input type="text"/>
DX4	<input type="text"/>
DX5	<input type="text"/>
DX6	<input type="text"/>
DX7	<input type="text"/>



**DX8**

**DX9**

**PP1**

**PR2**

**PR3**

**PR4**

**PR5**

**PR6**

**PR7**

**PR8**

**PR9**



# PRACTICE EXAM 2



A blank answer sheet for these multiple choice questions can be found on page 206.

**Domain I Health Information Documentation**

1. A 23-year-old female is admitted for vaginal bleeding following a miscarriage two weeks prior to this admission. She is afebrile at this time and is treated with an aspiration dilation and curettage. Products of conception are found. Which of the following should be the principal diagnosis?
  - a. O03.1, Delayed or excessive hemorrhage following incomplete spontaneous abortion
  - b. O08.1, Delayed or excessive hemorrhage following ectopic and molar pregnancy
  - c. R57.9, Shock, unspecified
  - d. T81.10XA, Postprocedural shock unspecified, initial encounter
2. A psychiatrist documents that a patient has wide mood swings from excessive happiness to loss of energy and crying. What condition is suspected?
  - a. Bipolar disorder
  - b. Major depression
  - c. Anxiety
  - d. Psychosis
3. A patient with a cephalic presentation anticipating a vaginal delivery failed to progress. After measurement of the fetal head and a trial of oxytocin, the patient underwent a cesarean section. What condition should the coder suspect and query the physician about?
  - a. Twin pregnancy
  - b. Early delivery
  - c. Eclampsia
  - d. Cephalopelvic disproportion
4. A 45-year-old woman underwent a carotid bypass and experienced a significant drop in blood pressure during the surgery. The documentation suggested the patient may have had a myocardial infarction. In accordance with coding guidelines, what should the coding professional do?
  - a. Code complication of surgery NOS.
  - b. Query the physician to determine if the patient had hypotension.
  - c. Query the physician to determine if there was a complication of surgery.
  - d. Code preoperative shock.
5. If a patient's discharge summary does not contain a diagnosis that is documented by the anesthesiologist in a preoperative evaluation and that would impact MS-DRG assignment, the coder should:
  - a. Code only from the discharge diagnoses
  - b. Code the diagnosis reflected on the anesthesia preoperative evaluation
  - c. Code the most severe symptom
  - d. Query the attending physician regarding the clinical significance of that diagnosis



6. A patient has documentation of esophageal varices. What condition may be related that may affect coding?
  - a. Arthritis
  - b. Liver disease
  - c. Chronic obstructive pulmonary disease
  - d. Erythema
7. A patient admitted with acute abdominal pain, is found to have appendicitis, and has an appendectomy. The patient has a length of stay of two days. What type of patient encounter is this?
  - a. Inpatient
  - b. Outpatient
  - c. Long-term care
  - d. Rehabilitation
8. A patient was treated in the emergency department for a swollen knee and an aspiration of the joint was performed. The patient was then discharged home. It is important to make sure that which of the following are documented and captured for billing purposes?
  - a. X-rays and other types of radiology examinations
  - b. Procedures performed including the aspiration of the joint
  - c. Examination and management in the emergency department
  - d. All services provided including diagnostic and treatment procedures, as well as physician services
9. A patient has documentation on the discharge summary of urosepsis. The coding staff queries the attending physician about the condition and is provided further information that the patient has septicemia. This is in alignment with the laboratory tests and medication given but the diagnosis of septicemia was not documented by the physician. How should the physician be requested to document the septicemia?
  - a. A brand new history and physical should be dictated to replace the one in the record.
  - b. An addendum to the chart should be written.
  - c. The new information should be squeezed in between lines within the progress notes of the last day.
  - d. The query sheet will be sufficient to document this information.
10. The committee responsible for medical record completion reports to which medical staff committee?
  - a. Chief executive officer of the facility
  - b. Medical Executive Committee
  - c. Discharge Planning Committee
  - d. Chief nursing officer
11. Two areas of documentation in the medial record that are significant areas of focus of accrediting agencies are:
  - a. Incident reports notion in the medical record and attorney's notes
  - b. Past medical reports and social worker's notes
  - c. Timeliness and legibility of medical documents
  - d. Patient documentation and pastoral counseling



12. In teaching facilities where electronic signatures are used for residents and attending physicians:
- Attending signature is all that is needed
  - Resident signature is all that is needed
  - Resident should co-sign after that attending signs the documentation
  - Attending should co-sign after the resident signs the documentation
13. An 84-year-old woman was admitted and discharged with hemiplegia and aphasia. A CT scan of the brain was performed that revealed an acute cerebral infarction and a possible small brain mass. After further testing, the patient was discharged with a final diagnosis of acute cerebral infarction. The condition(s) that should be coded are:
- Acute cerebral infarction
  - Hemiplegia and aphasia
  - Acute cerebral infarction, hemiplegia, and aphasia
  - Possible brain mass, hemiplegia, and aphasia

## **Domain II** *Diagnosis & Procedure Coding*

14. An inpatient is discharged with a diagnosis of "either irritable bowel or pancreatitis." Which condition would be the principal diagnosis?
- Code both and sequence according to the circumstances of the admission
  - Pancreatitis
  - Irritable bowel syndrome
  - Observation for suspected gastrointestinal condition
15. A 55-year-old male was transferred to a nursing home for continuing care because of ventilator dependence following complications of cardiac bypass surgery. He was readmitted three weeks later due to ventilator associated pneumonia (VAP) due to pseudomonas aeruginosa. How should this be coded?
- T88.9XXA, J18.9, B96.5
  - J16.8
  - J95.851, B96.5
  - J15.1, J95.851
16. A patient takes Coumadin as prescribed, and correctly administered. However, the patient develops hematuria secondary to the Coumadin use. The correct coding assignment for this case would be:
- Poisoning due to Coumadin
  - Unspecified adverse reaction to Coumadin
  - Hematuria, poisoning due to Coumadin
  - Hematuria, adverse reaction to Coumadin



17. A patient is admitted with lethargy, congestive heart failure, and pleural effusion. The patient underwent treatment with diuretics for the CHF, which has cleared. The pleural effusion required a thoracentesis to determine the cause. At the time of discharge, the effusion was decreased but not resolved. The correct coding assignment for this case would be:
- Congestive heart failure
  - Pleural effusion
  - Congestive heart failure and pleural effusion
  - Lethargy, congestive heart failure, and pleural effusion
18. A patient with human immunodeficiency virus (HIV) with methicillin susceptible pneumonia due to staphylococcus aureus was discharged from the acute-care setting. How should this be coded?

B20	Human immunodeficiency virus [HIV] disease
J15.20	Pneumonia due to other staphylococcus
J15.211	Pneumonia due to methicillin susceptible <i>Staphylococcus aureus</i>
J15.212	Pneumonia due to methicillin resistant <i>Staphylococcus aureus</i>
J17	Pneumonia in diseases classified elsewhere

- B20, J17
  - B20, J15.20
  - B20, J15.211
  - B20, J15.212
19. A patient has a diabetic ulcer of the right foot. How should this patient's record be coded?

E11.40	Type 2 diabetes mellitus with diabetic neuropathy, unspecified
E10.40	Type 1 diabetes mellitus with diabetic neuropathy, unspecified
E11.621	Type 2 diabetes mellitus with foot ulcer
E10.621	Type 1 diabetes mellitus with foot ulcer
E11.69	Type 2 diabetes mellitus with other specified complication
E10.69	Type 1 diabetes mellitus with other specified complication
L97.409	Non-pressure chronic ulcer of unspecified heel and midfoot with unspecified severity
L97.419	Non-pressure chronic ulcer of right heel and midfoot with unspecified severity

- E11.40, L97.419
- E11.40, L97.409
- E11.69, L97.419
- E11.621, L97.419



20. Assign code(s) for the following diagnosis: Congestive heart failure due to hypertension.

I10	Essential (primary) hypertension
I11.9	Hypertensive heart disease without heart failure
I11.0	Hypertensive heart disease with heart failure
I50.9	Heart failure, unspecified
I50.1	Left ventricular failure
I50.20	Unspecified systolic (congestive) heart failure
I50.21	Acute systolic (congestive) heart failure
I50.22	Chronic systolic (congestive) heart failure
I50.23	Acute on chronic systolic (congestive) heart failure

- a. I10, I50.9
- b. I11.0
- c. I50.23, I10
- d. I11.0, I50.9

21. A patient has squamous cell carcinoma of the knee. What code should be assigned for this diagnosis?

C49.20	Malignant neoplasm of connective and soft tissue of unspecified lower limb, including hip
C43.70	Malignant melanoma of unspecified lower limb, including hip
C44.701	Unspecified malignant neoplasm of skin of unspecified lower limb, including hip
C44.711	Basal cell carcinoma of skin of unspecified lower limb, including hip
C44.721	Squamous cell carcinoma of skin of unspecified lower limb, including hip
C76.50	Malignant neoplasm of unspecified lower limb

- a. C49.20
- b. C43.70
- c. C44.721
- d. C76.50

22. A patient is seen for evaluation of a right orbital roof fracture. How should this be coded?

S02.19XA	Other fracture of base of skull, initial encounter for closed fracture
S02.3XXA	Fracture of orbital floor, initial encounter for closed fracture
S02.92XA	Unspecified fracture of facial bones, initial encounter for closed fracture
S02.91XA	Unspecified fracture of skull, initial encounter for closed fracture

- a. S02.19XA
- b. S02.3XXA
- c. S02.92XA
- d. S02.91XA



23. A patient was seen for first- and second-degree burns of the upper thigh. How should this be coded?

T24.099A	Burn of unspecified degree of multiple sites of unspecified lower limb, except ankle and foot, initial encounter
T24.019A	Burn of unspecified degree of unspecified thigh, initial encounter
T24.119A	Burn of first degree of unspecified thigh, initial encounter
T24.219A	Burn of second degree of unspecified thigh, initial encounter

- a. T24.099A
- b. T24.019A
- c. T24.119A, T24.219A
- d. T24.219A

24. Suicide attempt with overdose of Percocet. How should this be coded?

F11.10	Opioid abuse, uncomplicated
T40.2X1A	Poisoning by other opioids, accidental (unintentional), initial encounter
T40.2X2A	Poisoning by other opioids, intentional self-harm, initial encounter
T40.2X3A	Poisoning by other opioids, assault, initial encounter
T40.2X4A	Poisoning by other opioids, undetermined, initial encounter
T40.2X5A	Adverse effect of other opioids, initial encounter

- a. F11.10, T40.2X2A
- b. T40.2X2A
- c. F11.10, T40.2X5A
- d. T40.2X5A

25. Itching due to drug reaction to an antihistamine. What codes should be assigned?

L29.9	Pruritus, unspecified
R89.2	Abnormal level of other drugs, medicaments and biological substances in specimens from other organs, systems and tissues
T50.905A	Adverse effect of unspecified drugs, medicaments and biological substances, initial encounter
T45.0X1A	Poisoning by antiallergic and antiemetic drugs, accidental (unintentional), initial encounter
T45.0X5A	Adverse effect of antiallergic and antiemetic drugs, initial encounter

- a. R89.2, T45.0X1A
- b. R89.2, T45.0X5A
- c. T50.905A, T45.0X1A
- d. L29.9, T45.0X5A



26. Acute peptic ulcer with perforation and hemorrhage and resulting blood loss anemia. What codes should be assigned?

K27.0	Acute peptic ulcer, site unspecified, with hemorrhage
K27.1	Acute peptic ulcer, site unspecified, with perforation
K27.2	Acute peptic ulcer, site unspecified, with both hemorrhage and perforation
D50.0	Iron deficiency anemia secondary to blood loss (chronic)
D62	Acute posthemorrhagic anemia

- a. K27.1, D62
  - b. K27.0, D62
  - c. K27.0, D50.0
  - d. K27.2, D50.0
27. Assign the *best* answer to complete the following sentence. The CPT codes for treatment of fractures:
- a. Use the terminology "manipulation" rather than "reduction" of fracture
  - b. Include internal fixation in all codes
  - c. Do not include application of cast
  - d. Do not differentiate between open and closed treatment; CPT only specifies the site of the fracture
28. In CPT, if a patient has two lacerations of the arm that are repaired with simple closures, the coder would assign:
- a. Two CPT codes expressing each laceration repair
  - b. One CPT code for the largest laceration
  - c. One CPT code, adding the lengths of the lacerations together
  - d. One CPT code for the most complex closure
29. According to CPT, a repair of a laceration that includes retention sutures would be considered ~~what~~ type of closure?
- a. Simple
  - b. Intermediate
  - c. Not specified
  - d. Complex



30. The patient was monitored under general anesthesia for keratoplasty including excision of diseased cornea. A controlled depth-setting blade was used to cut partially into the recipient's cornea in a manner to allow the lamellar graft to fit. Which CPT code should be assigned?

65710	Keratoplasty (corneal transplant); anterior lamellar
65730	Keratoplasty (corneal transplant); penetrating (except in aphakia or pseudophakia)
65750	Keratoplasty (corneal transplant); penetrating (in aphakia)
65755	Keratoplasty (corneal transplant); penetrating (in pseudophakia)

- a. 65710
- b. 65730
- c. 65750
- d. 65755

31. Assign the correct CPT code for a 50-year-old female patient admitted to outpatient surgery department for laparoscopic surgical repair of a recurrent, incarcerated incisional hernia with mesh insertion.

49561	Repair initial incisional or ventral hernia; incarcerated or strangulated
49565	Repair recurrent incisional or ventral hernia, reducible
49566	Repair recurrent incisional or ventral hernia; incarcerated or strangulated
49657	Laparoscopy, surgical, repair, recurrent incisional hernia (includes mesh insertion, when performed); incarcerated or strangulated

- a. 49561
- b. 49565
- c. 49566
- d. 49657

32. Patient with renal tumors received percutaneous cryotherapy ablation of three tumors on the right kidney in the same operative episode at Memorial Hospital. Assign a CPT code for this procedure.

50250	Ablation, open, 1 or more renal mass lesion(s), cryosurgical, including intraoperative ultrasound guidance and monitoring, if performed
50590	Lithotripsy, extracorporeal shock wave
50592	Ablation, 1 or more renal tumor(s), percutaneous, unilateral, radiofrequency
50593	Ablation, renal tumor(s), unilateral, percutaneous, cryotherapy

- a. 50250
- b. 50590
- c. 50592
- d. 50593



33. In outpatient surgery, a PTCA is completed with insertion of a drug-eluting stent in the left circumflex artery and a non-drug-eluting stent inserted into the left anterior descending artery of this 56-year-old female. Assign the correct CPT code(s) for this procedure.

92920	Percutaneous transluminal coronary angioplasty; single major coronary artery or branch
+92921	each additional branch of a major coronary artery (List separately in addition to code for primary procedure.)
92928	Percutaneous transcatheter placement of intracoronary stent(s), with coronary angioplasty when performed; single major coronary artery or branch
+92929	each additional branch of a major coronary artery (List separately in addition to code for primary procedure.)
G0290	Transcatheter placement of a drug eluting intracoronary stent(s), percutaneous, with or without other therapeutic intervention, any method; single vessel
G0291	Transcatheter placement of a drug eluting intracoronary stent(s), percutaneous, with or without other therapeutic intervention, any method; each additional vessel
-LC	Left circumflex coronary artery
-LD	Left anterior descending coronary artery

- a. 92921, 92920
- b. 92920-LC, 92921-LD
- c. G0291-LC
- d. G0290-LC

34. Patient admitted for laparoscopic repair of right diaphragmatic hernia. Assign the ICD-10-PCS procedure code for this surgery.

0BQR4ZZ	Repair right diaphragm, percutaneous endoscopic approach
0BQR0ZZ	Repair right diaphragm, open approach
0BQS4ZZ	Repair left diaphragm, percutaneous endoscopic approach
0BQS0ZZ	Repair left diaphragm, open approach

- a. 0BQR4ZZ
- b. 0BQR0ZZ
- c. 0BQS4ZZ
- d. 0BQS0ZZ



35. Patient presents in the ER with thrombosis of a loop PTFE hemodialysis fistula without mechanical complications. The physician performed a percutaneous thrombectomy of the left brachial vein. Assign a facility code for this outpatient procedure.

05CA3ZZ	Percutaneous thrombectomy of left brachial vein
36831	Thrombectomy, open, arteriovenous brachial fistula
36832	Revision, open, arteriovenous fistula; without thrombectomy, autogenous or nonautogenous dialysis graft (separate procedure)
37184	Primary percutaneous transluminal mechanical thrombectomy, noncoronary, arterial or arterial bypass graft, including fluoroscopic guidance and intraprocedural pharmacological thrombolytic injection(s); initial vessel

- a. 05CA3ZZ
- b. 36831
- c. 37184
- d. 36832

36. Physician performed a myringotomy under general anesthesia for insertion of bilateral ventilating tubes on a 4-year-old male. This is due to chronic otitis media. What is the correct CPT code assignment and what modifier should be appended (if applicable) to this procedure code?

69421	Myringotomy including aspiration and/or eustachian tube inflation requiring general anesthesia
69436	Tympanostomy (requiring insertion of ventilating tube), general anesthesia
-50	Bilateral procedure
-51	Multiple procedures
-RT	Right side
-LT	Left side

- a. 69421-RT
- b. 69421-LT
- c. 69436-51
- d. 69436-50

37. Removal of two (2) skin tags on chest (0.3 cm and 0.5 cm). What is the correct CPT code(s) assignment?

11200	Removal of skin tags, multiple fibrocutaneous tags, any area; up to and including 15 lesions
11201	Removal of skin tags, multiple fibrocutaneous tags, any area; each additional 10 lesions, or part thereof (List separately in addition to code for primary procedure.)
11305	Shaving of epidermal or dermal lesion, single lesion, scalp neck, hands, feet, genitalia; lesion diameter 0.5 cm or less

- a. 11200, 11201
- b. 11305, 11305
- c. 11305
- d. 11200



38. In outpatient surgery, a patient undergoes a direct laryngoscopy with operating microscope. What code should be assigned?

31515	Laryngoscopy direct, with or without tracheoscopy; for aspiration
31520	Laryngoscopy direct, with or without tracheoscopy; diagnostic newborn
31525	Laryngoscopy direct, with or without tracheoscopy; diagnostic except newborn
31526	Laryngoscopy direct, with or without tracheoscopy; diagnostic, with operating microscope or telescope

- a. 31515
  - b. 31520
  - c. 31525
  - d. 31526
39. If a patient is admitted with a substance-related psychosis, what is coded?
- a. The psychosis is coded first and the drug or alcohol dependence is coded second.
  - b. The drug or alcohol dependence is coded first.
  - c. The drug or alcohol dependence is not coded.
  - d. The psychosis is not coded.
40. When coding a documented ventilator associated pneumonia (VAP), what codes should be assigned?
- a. The pneumonia is coded first.
  - b. The complication of surgery is coded first.
  - c. The specific code for ventilator associated pneumonia is coded first and the organism is coded as a secondary code if known.
  - d. An additional code for the type of pneumonia, that is, lobar or pneumonia NOS, is coded.
41. When trying to determine if documentation is present to substantiate status asthmaticus, the coder should review the record for what terms and phrases?
- a. Intractable pneumonia
  - b. Refractory asthma and severe, intractable wheezing
  - c. Airway obstruction relieved by bronchodilators
  - d. Limited but pronounced wheezing
42. Gastrointestinal bleeding manifests as:
- a. Hematemesis which indicates acute upper gastrointestinal hemorrhage
  - b. Petechia
  - c. Vomiting
  - d. Constipation which indicates upper or lower gastrointestinal hemorrhage



43. Mechanical ventilation codes require consideration of which of the following?
- The time when a tracheal tube is inserted
  - The replacement of an endotracheal tube
  - The start time of endotracheal tube insertion followed by mechanical ventilation
  - Mechanical ventilation during surgery
44. An example of breast reconstruction is:
- Total reconstruction
  - Insertion of drains
  - Removal of lymph nodes
  - Mammography
45. Name the types of pacemaker devices that each have a unique ICD-10-PCS code.
- Dual chamber rate responsive
  - Single chamber rate responsive, and dual chamber
  - Multiple chamber
  - Multiple chamber rate responsive
46. If a patient undergoes a biopsy immediately before the definitive surgery for a frozen section, how should this be coded with ICD-10-PCS codes?
- The approach to the definitive surgery
  - Suture method
  - Exploratory surgery
  - Open biopsy and definitive surgery
47. A patient was given heparin during hospitalization for a deep vein thrombophlebitis of the right lower extremity. The patient had back pain and the nurse was not answering the bell, so he decided to take two aspirin. The interaction between the aspirin and heparin caused a subcutaneous hemorrhage of the thigh of the right lower extremity. How should the interaction between aspirin and heparin be coded?
- Poisoning codes for aspirin and heparin, and subcutaneous hemorrhage of the thigh of the right lower extremity as secondary conditions
  - Poisoning codes for aspirin and heparin, and subcutaneous hemorrhage of the thigh of the right lower extremity as principal
  - Adverse effects of drugs for aspirin and heparin, and subcutaneous hemorrhage of the thigh of the right lower extremity as secondary conditions
  - Adverse effects of drugs for aspirin and heparin as secondary diagnoses, and subcutaneous hemorrhage of the thigh of the right lower extremity as principal



48. A 77-year-old patient has hypertensive heart disease with congestive heart failure and stage 5 renal disease. What codes would be assigned?
- a. I11.0, Hypertensive heart disease with heart failure
  - b. I13.2, Hypertensive heart and chronic kidney disease with heart failure and with stage 5 chronic kidney disease, or end stage renal disease
  - c. I50.9, Heart failure, unspecified
  - d. N18.6, End stage renal disease

**Domain III** **Regulatory Guidelines and Reporting Requirements for Acute-Care (Inpatient) Service**

49. According to the UHDDS, the definition of a *secondary diagnosis* is a condition that:
- a. Is recorded in the patient record
  - b. Receives evaluation and is documented by the physician
  - c. Receives clinical evaluation, therapeutic treatment, further evaluation, extends the length of stay, increases nursing monitoring and care
  - d. Is considered to be essential by the physicians involved and is reflected in the record
50. A female patient is diagnosed with congestive heart failure and also has a stage IV pressure ulcer. Which of the following POA indicators must be present so that the ulcer will be classified as a MCC for this admission?
- a. N
  - b. Y
  - c. W
  - d. U
51. A patient is admitted to a healthcare facility with ataxia and syncope. The patient has a history of lung cancer. The patient also has a fractured arm as a result of falling. The patient undergoes a closed reduction of the fracture in the emergency department and a complete workup for metastatic carcinoma of the brain. The patient is found to have metastatic carcinoma of the lung to the brain and undergoes radiation therapy to the brain. The principal diagnosis should be:
- a. Fractured arm
  - b. Syncope
  - c. Metastatic carcinoma of the brain
  - d. Carcinoma of the lung
52. A 78-year-old patient is admitted with shortness of breath and a chest x-ray reveals infiltrates in the lung with pleural effusion. The patient also has a history of hypertension with left ventricular hypertrophy. The patient is given Lasix and the shortness of breath is relieved. From the information given, what is the probable principal diagnosis?
- a. Pneumonia
  - b. Congestive heart failure
  - c. Pleural effusion
  - d. Chronic obstructive pulmonary disease



53. A patient is admitted with abdominal pain. The discharge documentation states "pancreatitis vs. noncalculus cholecystitis" as the final diagnoses. Both diagnoses are equally treated. Based on coding guidelines, what is the correct sequencing for these diagnoses?
- Sequence either the pancreatitis or noncalculus cholecystitis first
  - Pancreatitis; noncalculus cholecystitis; abdominal pain
  - Noncalculus cholecystitis; pancreatitis
  - Sequence the abdominal pain first, followed by pancreatitis and noncalculus cholecystitis as secondary diagnoses
54. An inpatient undergoes a procedure and has a postoperative complication during the hospitalization. The insurance company will not pay for the entire amount requested. Which POA indicator is likely part of the cause?
- N
  - Y
  - W
  - U
55. The best answer to describe how the UHDDS defines a comorbidity as a diagnosis that:
- Affects the payment rate
  - Occurs after admission
  - Is not documented
  - Pre-exists before admission
56. A significant procedure is one that requires all of the following *except*:
- Is surgical in nature
  - Carries a genetic risk
  - Carries an anesthetic risk
  - Requires specialized training
57. The Uniform Bill-2004 supports, among other things, the transition to:
- An integrated health care delivery system
  - A morbidity registry system
  - Increased patient empowerment
  - ICD-10-CM and ICD-10-PCS
58. A condition that is established after study to be chiefly responsible for the admission is the:
- Reason for visit
  - Principal procedure
  - A complication of outpatient care
  - Principal diagnosis



59. A patient is admitted as an inpatient and discharged with chest pain. After evaluation, it is suspected the patient may have gastroesophageal reflux disease (GERD). The final diagnosis was "Rule out GERD." The correct code assignment would be:
- Z03.89, Encounter for observation for other suspected diseases and conditions ruled out
  - R10.11, Right upper quadrant pain
  - K21.9, Gastro-esophageal reflux disease without esophagitis
  - R07.9, Chest pain, unspecified

#### Domain IV Regulatory Guidelines and Reporting Requirements for Outpatient Services

60. Which of the following is *not* a function of the outpatient code editor (OCE)?
- Editing the data on the claim for accuracy
  - Specifying the action the FI should take when specific edits occur
  - Assigning APCs to the claim (for hospital outpatient services)
  - Determining payment-related conditions that require direct reference to ICD-10-CM codes
61. According to CPT guidelines, a colonoscopy includes:
- Examination of the rectum and sigmoid colon
  - Examination of the entire rectum, sigmoid colon, and may include examination of a portion of the descending colon
  - Examination of the entire colon from the rectum to the cecum
  - Examination of the entire colon, from the rectum to the cecum, and may include the examination of the terminal ileum
62. A female patient with hematochezia presents to the hospital outpatient surgery department for a colonoscopy but the procedure was not performed due to elevated blood pressure. What is the *first* listed diagnosis for this encounter?
- Elevated blood pressure
  - Hematochezia
  - Procedure not performed due to contraindication
  - Procedure not performed for other reason

Use the information in this table to answer questions 63 through 65.

Billing Number	Status Indicator	CPT/HCPCS	APC	Reimbursement*
989323	T	10060	0006	\$500
989323	T	64605	0220	\$1,000
989323	X	71010	0260	\$50.00
989323	S	38230	0112	\$2,000

\* This is not the actual status indicator, APC number, or reimbursement for the designated APC.



63. From the information provided, what would be the total reimbursement for this patient?
- a. \$3,550
  - b. \$3,000
  - c. \$3,050
  - d. \$3,300
64. What percentage will the facility be paid for procedure code 10060?
- a. 50%
  - b. 75%
  - c. 0%
  - d. 100%
65. If another status S procedure were performed, how much would the facility receive for the second status S procedure?
- a. 50%
  - b. 75%
  - c. 0%
  - d. 100%
66. A Pap smear cannot be interpreted because the sample was inadequate. What type of code should be assigned?
- a. Code that designates abnormal smear
  - b. Code that designates satisfactory smear but lacking transformation zone
  - c. Code for other abnormal Pap smear
  - d. Code for unsatisfactory cytology smear
67. If a diagnosis of rule-out pneumonia with cough and malaise is specified in an emergency department visit, the coder should assign a code for:
- a. Malaise
  - b. Pneumonia
  - c. A cough
  - d. Cough and malaise
68. Contradictory documentation may be remedied proactively by using:
- a. Communication tools
  - b. External audits
  - c. Compliance regulations
  - d. Corporate integrity agreements
69. The National Correct Coding Initiative (NCCI) has resulted in the use of edits in:
- a. Medicare scrubbing software
  - b. HIPAA software
  - c. Medicare Part B claims processing software
  - d. Telemedicine consultation software



**Domain V Data Quality and Management**

70. Which of the following services are paid under the outpatient prospective payment system (OPPS)?
- Ambulance services
  - Outpatient hernia repair
  - Clinical diagnostic laboratory test performed on the same day as a surgical procedure
  - Inpatient procedures
71. What is assigned to CPT codes to indicate whether a service or procedure will be reimbursed under the OPPS?
- Ambulatory payment classifications
  - Payment status indicators
  - Payment modifiers
  - Diagnosis-related groups
72. Diagnostic-related groups (DRGs) and ambulatory patient classifications (APCs) are dissimilar in that:
- There is only one MS-DRG per inpatient visit with one or more APCs per outpatient visit
  - There are many MS-DRGs per inpatient visit with only one APC per outpatient visit
  - There are more possible MS-DRGs for inpatients than there are APCs for outpatients
  - There are up to three MS-DRGs per each inpatient visit while there are only up to seven APCs per outpatient visit

*Refer to the following data when answering questions 73 and 74. (Note: The DRG numbers and weights are not actual numbers and weights for fiscal year 2015.)*

MS-DRG	MS-DRG Wt.	Number of Patients
191	2.0	10
192	1.5	10
193	1.0	10

73. The case mix for the information provided above is:
- 30
  - 20
  - 45
  - 15



74. The information provided shows that:
- The payment is lowest for patients with DRG 193
  - There are more patients with DRG 191
  - The case-mix index could decrease if more patients in DRG 191 were admitted
  - The case-mix index would increase if more patients in DRG 193 were admitted
75. Data accuracy is also referred to as:
- Consistency
  - Comprehensiveness
  - Timeliness
  - Validity
76. A method that can be used to ensure validity of data in the database is:
- Encryption
  - Edits
  - Security
  - Transparency
77. Data consistency means that the data is:
- Edited
  - Reliable
  - Comprehensive
  - Relevant
78. A 64-year-old female was discharged with the final diagnosis of acute renal failure and hypertension. What coding rule applies?
- Use combination code of hypertension and renal failure.
  - Use separate codes for hypertension and chronic renal failure.
  - Use separate codes for hypertension and acute renal failure.
  - Use separate codes for elevated blood pressure and chronic renal failure.



**Domain VI Information and Communication Technologies**

79. The quality management director is working on physician reappointment reports and needs to focus on all physicians who attended patients with pneumonia during the last quarter. She asks the coder to get a list of all pneumonia patients who did not have an x-ray done during their stays. To perform this task efficiently, the coder should do the following: (Note: The same time frame applies to all reports.)
- Obtain a list of all patients whose principal diagnosis was pneumonia, retrieve those patient records, and look for documentation of the x-ray. Upon finding, record the patient information and attending physician.
  - Obtain a list of all patients whose DRG was simple pneumonia and pleurisy, retrieve those patient records, and identify documentation of x-ray and physician responsible.
  - Obtain a list of all patients who were diagnosed with pneumonia, retrieve those patient records, identify patients who did not have an x-ray done along with the physician responsible, and record this information in a spreadsheet.
  - Obtain a list of all patients who were diagnosed with pneumonia, retrieve a list of all patients who had an x-ray from the charge master, compare both lists, and identify patients who did not have an x-ray along with the physician responsible.
80. The blood usage review committee is trying to identify physicians who have ordered blood transfusions without following the predetermined criteria during the last quarter. How can this be done most efficiently?
- Obtain a list of all blood transfusions given in the facility during the quarter along with the ordering physician, manually identify cases with the highest amount of packed cells received, retrieve those patient records, and determine whether the criteria were followed.
  - Obtain a list of all blood transfusions given in the facility during the designated quarter along with the ordering physicians and lab values for RBC. Import the list into a spreadsheet and sort the data by the highest blood transfusion amount.
  - Obtain a list of all blood transfusions given in the facility during the designated quarter along with the ordering physicians and lab values for RBC. Import the list in a spreadsheet and sort the data by the highest RBC value.
  - Obtain a list of all blood transfusions given in the facility during the designated quarter along with the ordering physicians and lab values for RBC. Import the list into a spreadsheet and filter the data by using the RBC predetermined values or lower in the facility criteria for blood transfusions.
81. A quality improvement study showed that maternity cases are not being coded with the correct procedure code for manually assisted vaginal delivery codes associated. What HIM software could be used to evaluate this?
- Birth certificate registry or master patient index
  - Transcription registry or correspondence registry
  - Quality improvement or operative registry
  - Billing and reimbursement abstracting system



82. The Health Information Technology for Economic and Clinical Health (HITECH) Act is providing incentives for:
- Electronic tumor registry software
  - Facility-based qualitative analysis of documentation
  - Meaningful use of certified EHR technology
  - Revised billing scrubber software
83. The use of standard protocols to enable different computer systems to communicate is referred to as:
- Digital assistance
  - A data set
  - Interoperability
  - Pay for communication
84. The coding supervisor is concerned that patients diagnosed with carcinoid colon tumors were miscoded as malignant during the last six months. To address this situation, what work processes could be undertaken?
- Obtain the cases of carcinoid colon tumors from the cancer registry, obtain the cases of malignant colon tumors from the billing system, import both lists into a spreadsheet, and compare them. The cases in the cancer registry and not in the billing system are likely malignant and should be manually reviewed.
  - Compare the cases from the chart completion software with the billing software. Identify the cases that are not in the billing system. These cases should be manually reviewed to ensure they are not carcinoid tumors.
  - Obtain the cases of malignant colon tumors from both the cancer registry and the billing system; import both lists into a spreadsheet and compare them. Identify the cases that are not in the tumor registry that are in the billing system. These cases should be manually reviewed to ensure they are not carcinoid tumors.
  - Compare the cases from the transcription tracking software to the billing system. Identify the cases that are not in the transcription tracking software and are in the billing system. These cases should be manually reviewed to ensure they are not carcinoid tumors.

## Domain VII Privacy, Confidentiality, Legal, and Ethical Issues

85. According to the AHIMA Standards of Ethical Coding, "A coder should protect the confidentiality of the health record at all times and refuse to access protected health information not required for coding-related activities." Which of the following is *not* considered a coding-related activity?
- Coding quality evaluation
  - Review of records assigned each day
  - Risk analysis of medical record documentation
  - Completion of abstracting



86. A routine computer back-up procedure is an example of a security program that ensures data loss does not occur. This type of control is:
- a. Computer
  - b. Validity
  - c. Responsive
  - d. Preventive
87. The patient was admitted for prostate carcinoma. This was treated with radiation. A member of the medical staff who was not associated with the patient's care requests to see the patient's record. What should the coder do?
- a. Provide the record to the physician.
  - b. Report the incident to hospital security.
  - c. Ask the physician to come back when the supervisor gets back.
  - d. Explain that providing the record would violate the privacy policy.
88. The billing department has requested that a copy of the operative report be provided when **unlisted CPT codes** are used. The coding staff should:
- a. Provide the report because insurers will not provide reimbursement without this documentation
  - b. Not provide the report
  - c. Require patient consent for this specific type of release
  - d. Ignore the request
89. Confidentiality includes the responsibility to:
- a. Leave a person alone
  - b. Limit disclosure of private matters
  - c. Provide physical protection of information
  - d. Disclose anything requested
90. In most circumstances, the person who authorizes release of medical information is:
- a. Chief executive officer
  - b. Patient
  - c. Physician
  - d. Nurse
91. When patients are admitted with vaginal bleeding, one of the financial analysts has determined that if one additional procedure code were routinely added to each case, reimbursement would be increased. This would be considered an ethical practice if:
- a. The vice president of finance approves the procedure
  - b. The billing department wants this; it can be done
  - c. Under no circumstances could this be done
  - d. There is documentation of the procedure in the medical record



**Domain VIII Compliance**

92. According to Medicare requirements, a history and physical must:
- Be coded based on the uniform hospital discharge proposal
  - Include the patient's weight, height, body mass index, and year of birth
  - Be completed for each patient no more than 30 days before or 24 hours after admission or registration, but prior to surgery
  - Discuss the educational plans for the patient including diet, exercise, and plans for smoking cessation
93. Which of the following is a key part of an internal coding compliance plan for facility-based evaluation and management code assignment?
- Regular internal audits comparing the code assignment to the facility guidelines
  - Audits performed by objective external reviewers
  - Coding audits performed by physician payers
  - Sharing and discussing results with admission staff
94. Proper discharge planning for inpatients being transferred to another healthcare delivery system must include a complete summary of the patient's history, current status, and future needs to ensure appropriate:
- Coding
  - Billing
  - Continuity of care
  - Quality of care
95. Which of the following is *not* part of a coding compliance plan?
- Regular internal audits
  - Audits performed by objective external reviewers
  - Coding audits performed by payers
  - Sharing and discussing results with coding staff
96. Based on the "Compliance Program Guidance for Hospitals," identify which of the following is *not* one of the seven elements specified by the Office of the Inspector General (OIG):
- Written standards of conduct
  - Development of a penalty fund
  - Designation of a Chief Compliance Officer
  - A system to respond to allegations
97. Inpatients who undergo open reduction and internal fixation of a fractured femur are routinely coded with blood loss anemia because of a policy that specifies that this should be done when there is intraoperative blood loss of 500 cc or more documented in the operative report and the patient has low hemoglobin. Why is this correct or incorrect?
- It is correct to code blood loss anemia because the policy requires it.
  - It is correct because the clinical signs are documented in the record.
  - It is incorrect because the patient must also have a blood transfusion in order for blood loss anemia to be coded.
  - It is incorrect because the physician did not document the blood loss anemia in the progress notes.



## Multiple Choice Exam 2 Answers

1.	26.	51.	76.
2.	27.	52.	77.
3.	28.	53.	78.
4.	29.	54.	79.
5.	30.	55.	80.
6.	31.	56.	81.
7.	32.	57.	82.
8.	33.	58.	83.
9.	34.	59.	84.
10.	35.	60.	85.
11.	36.	61.	86.
12.	37.	62.	87.
13.	38.	63.	88.
14.	39.	64.	89.
15.	40.	65.	90.
16.	41.	66.	91.
17.	42.	67.	92.
18.	43.	68.	93.
19.	44.	69.	94.
20.	45.	70.	95.
21.	46.	71.	96.
22.	47.	72.	97.
23.	48.	73.	
24.	49.	74.	
25.	50.	75.	



# PRACTICE EXAM 2

## CASE STUDIES



*Note: Review the Procedures for Coding Medical Record Cases for the CCS Examination in the Introduction of this book.*

### **SAME-DAY SURGERY SUMMARY—PATIENT 1**

**DATE OF ADMISSION:** 12/30

**DATE OF DISCHARGE:** 12/30

**DISCHARGE DIAGNOSIS:** Bunion of 1st metatarsal, left foot

**ADMISSION HISTORY:** This is a 45-year-old white female in good health. Her family physician has performed a history and physical that demonstrated her health is within normal limits. The patient has no known allergies, good pedal pulses. The patient has a bunion of the left 1st metatarsal.

**COURSE IN HOSPITAL:** The patient was admitted to same-day surgery for osteotomy of the 1st metatarsal. The patient was taken to the OR where this was accomplished. The patient tolerated the procedure well and is discharged to home in stable condition.

**INSTRUCTIONS ON DISCHARGE:**

Keep foot elevated.

Keep dressing dry; do not change until seen by your physician.

Use surgical shoe.

Take Percocet 2.5 mg every 4 hours as needed for pain.

### **HISTORY AND PHYSICAL EXAMINATION—PATIENT 1**

**DATE:** 12/30

**HISTORY OF PRESENT ILLNESS:** The patient has had increased long-term pain with difficulty ambulating.

**PAST MEDICAL HISTORY:** The patient has no major health problems and has not undergone major surgery.

**ALLERGIES:** None known

**CHRONIC MEDICATIONS:** None

**FAMILY HISTORY:** Noncontributory

**PHYSICAL EXAMINATION:**

**IMPRESSION:** B.P. 130/88, pulse is 68, respirations 20, temp 97.3. HEENT, within normal limits. Heart, normal. Lungs, clear. Abdomen, soft with bowel sounds. Pelvic and rectal deferred. Extremities, normal except bunion on 1st metatarsal.

**PLAN:** Osteotomy with excision of 1st metatarsal eminence



**PROGRESS NOTES — PATIENT 1**

DATE	NOTE
12/30	This is a 45-year-old female admitted for osteotomy to relieve long-term pain in the left foot. The patient is good health. D/C when stable as per discharge criteria. Patient admitted for surgery.

**OP-NOTE:****PREOP DX:** Bunion of 1st metatarsal**POSTOP DX:** Same**OPERATION:** Osteotomy with excision of 1st metatarsal eminence**ANES:** Digital

Good circulation and sensation. Will encourage patient to ambulate with splint and crutches.

Discharge when stable. Follow up in one week with my office.

**DISCHARGE MEDICATIONS:** None**PHYSICIAN'S ORDERS — PATIENT 1**

DATE	ORDER
12/30	Admit to Same-Day Surgery Unit Prep for surgery Vistaril 50 mg PO 1 hour preop Atropine 0.8 mg PO 1 hour preop Postop Orders: Continue to elevate foot. Percocet 2.5 mg every 4 hours p.r.n. for pain. Discharge patient when surgical shoe procured.



## OPERATIVE REPORT—PATIENT 1

**DATE:** 12/30

**PREOPERATIVE DIAGNOSIS:** Bunion of the 1st metatarsal head, left foot

**POSTOPERATIVE DIAGNOSIS:** Same

**OPERATION:** Osteotomy with partial excision of the 1st left metatarsal head

**ANESTHESIA:** Digital

**OPERATIVE PROCEDURE:** With the patient under local standby anesthesia and in the supine position she was properly prepped and draped. The tourniquet was applied about the left ankle superior to the malleoli.

A lazy "S" type incision was made on the lateral side of the 1st metatarsal head. This incision was deepened by blunt and sharp dissection until the capsule of the 1st metatarsophalangeal joint, left was reached. A linear incision measuring approximately 4 cm in length was made. An osteotomy through the neck of the same bone was undertaken with an osteotome. Following alignment of bone, a wire link was placed. The joint capsule was closed with continuous suture of 2-0 chromic catgut and the subcutaneous tissue was closed with continuous suture of 4-0 chromic catgut and the skin was closed with continuous suture of 4-0 nylon.

The wound was dressed with Vaseline gauze and gentle fluff pressure dressing. The patient was discharged from the operating suite in good condition noting that vascularity had returned to all 5 toes.

## PATHOLOGY REPORT—PATIENT 1

**DATE:** 12/30

**SPECIMEN:** Bunion from the 1st toe left foot

**GROSS DESCRIPTION:** The specimen consists of a dome-shaped fragment of hypertrophic osseous tissue that measures 1.2 × 1.1 × 0.5 cm. Decalcification.

**MICROSCOPIC DESCRIPTION:** Sections of the decalcified tissue reveal fragments of hypertrophic osteocartilaginous tissue. No evidence of metastatic disease or neutrophilic inflammatory infiltrate was noted.

**DIAGNOSIS:** Bone (left 1st toe): Fragments of hypertrophic osteocartilaginous tissue

Enter one diagnosis code and one procedure code.

PDX

PP1



## Emergency Department Evaluation and Management (E/M) Mapping Scenario for Emergency Department Case 2

Code the procedures that are done in the emergency department as well as the E/M code derived from the E/M mapping scenario.

### Point Value Key

Level 1 = 1–20

Level 2 = 21–35

Level 3 = 36–47

Level 4 = 48–60

Level 5 = > 61

Critical Care > 61 with constant physician attendance

### CPT Codes

Level 1 99281 99281–25 with procedure/laboratory/radiology

Level 2 99282 99282–25 with procedure/laboratory/radiology

Level 3 99283 99283–25 with procedure/laboratory/radiology

Level 4 99284 99284–25 with procedure/laboratory/radiology

Level 5 99285 99285–25 with procedure/laboratory/radiology

Emergency Department Acuity Points					
	5	10	15	20	25
Meds Given	1–2	3–5	6–7	8–9	>10
Extent of Hx	Brief	PF	EPF	Detail	Comprehensive
Extent of Examination	Brief	PF	EPF	Detail	Comprehensive
Number of Tests Ordered	0–1	2–3	4–5	6–7	>8
Supplies Used	1	2–3	4–5	6–7	>8



**EMERGENCY DEPARTMENT RECORD — PATIENT 2****DATE OF ADMISSION:** 8/19**DATE OF DISCHARGE:** 8/19**HISTORY (Problem Focused):****ADMISSION HISTORY:** This is a 13-year-old African-American male. He was short of breath, used his inhaler as prescribed but continued to have wheezing and shortness of breath.**ALLERGIES:** None**CHRONIC MEDICATIONS:** Albuterol inhaler**FAMILY HISTORY:** Noncontributory**SOCIAL HISTORY:** The patient's father smokes one pack of cigarettes per day but he does not smoke in the house.**REVIEW OF SYSTEMS:** His integumentary, musculoskeletal, cardiovascular, genitourinary, and gastrointestinal systems are negative.**PHYSICAL EXAMINATION (Extended Problem Focused):****GENERAL APPEARANCE:** This is an alert, cooperative young male in acute distress.**HEENT:** PERRLA, extraocular movements are full**NECK:** Supple**CHEST:** Lungs reveal wheezes and rales. Heart has normal sinus rhythm.**ABDOMEN:** Soft and nontender, no organomegaly**EXTREMITIES:** Examination is normal.**LABORATORY DATA:** Urinalysis is normal, EKG normal, chest x-ray is normal. CBC and diff show no abnormalities.**IMPRESSION:** Moderately persistent asthma with exacerbation**PLAN:** Administer epinephrine and intravenous theophylline**TREATMENT:** Following administration of epinephrine and theophylline, the patient's asthma abated. One venipuncture set and one IV set were used to administer the medication over 30 minutes.**DISCHARGE DIAGNOSIS:** Asthma, moderately persistent with exacerbation**DISCHARGE INSTRUCTIONS:** The patient was instructed to take his prescribed medications as directed by his primary care physician and to return to the ER if he had any further asthma.*Enter one diagnosis code and two procedure codes.***PDX****PP1****PR2**



**SAME-DAY PROCEDURE—PATIENT 3**

Left heart catheterization, left ventriculography, coronary angiography, drug-eluting stent to left anterior descending coronary artery

**PROCEDURE:** After obtaining informed consent the patient was taken to the cardiac catheterizations laboratory. He was prepped and draped in the usual fashion and 2% Xylocaine was used to anesthetize the right groin. 6-French sheaths were introduced into the right femoral artery and vein and a 6-French multipurpose catheter was used for left heart catheterizations, coronary angiography, and left ventricular angiography. I then proceeded to perform a stent/PTCA to the LAD. A HTF wire was used to cross the LAD stenosis and a 4.0-mm J&J stent was placed in the left anterior descending coronary vessel with excellent results. The final angiogram was obtained and the guiding catheterization was removed. The sheaths were securely sutured and the patient tolerated the procedure well without complications.

**FINDINGS:**

Left heart catheterizations revealed an elevated resting left ventricular end diastolic pressure of 18 mm Hg.

Left ventriculography: Viewed in the RAO projection with normal systolic wall motion. The end-diastolic pressure is 18 to 20 mm Hg. There is no gradient detected.

Coronary angiography (using single catheter): The right coronary vessel has dominant structure with minor luminal irregularities only. The left main is normal with the left anterior descending coronary artery having a 75% calcified proximal stenosis and the circumflex marginal system with a 10% to 20% plaquing only.

LAD stent underlying: Left anterior descending coronary vessel was easily isolated and the primary stent intervention was carried out with a 3.0 Cypher drug-eluting stent. Final sizing was 3.1 mm resulting in 0% residual stenosis and maintenance of TIMI III flow distally in the LAD system.

**CONCLUSION:** Critical single-vessel obstructive coronary artery disease involving the LAD system successfully treated with drug-eluting stent technology. The left anterior descending coronary artery shows excellent results. Preserved left ventricular systolic wall motion.

Enter one diagnosis code and two procedure codes.

PDX

PP1

PP1



## PAIN MANAGEMENT—PATIENT 4

**DATE:** 1/20XX

**CHIEF COMPLAINT:** Weakness, vomiting, sleepiness

**HISTORY OF PRESENT ILLNESS:**

The patient is a 55-year-old female who presents to the emergency department with her family. The patient has anal cancer metastatic to the kidney-lung-brain areas. She has been seen here multiple times. She has been having increasing weakness and vomiting at home, decreased mentation. She has been bedridden for at least the last 4 weeks.

**REVIEW OF SYSTEMS:**

She has occasional headaches and seizures. No syncope, cough, or shortness of breath. She has had repeated bouts of nausea and vomiting, no obvious urinary frequency, urgency, or dysuria. She has had decreased mentation. The review of systems is otherwise negative.

**PAST MEDICAL HISTORY:**

**ILLNESSES:**

1. Cancer as above
2. History of hypertension
3. She has seizures secondary to brain metastases

**MEDICATIONS:**

Per list include

1. Dilantin 300 mg p.o. b.i.d.
2. Lantus insulin
3. Dexamethasone
4. Protonix
5. Xanax
6. Atenolol
7. Norvasc
8. Reglan
9. Benadryl
10. Antivert
11. Zyvox
12. Depakote
13. Lorazepam



**PAIN MANAGEMENT—PATIENT 4 (continued)****ALLERGIES:**

1. Levaquin
2. Penicillin

The patient lives at home. She is a nonsmoker. She is here with multiple family members. She is married.

**PHYSICAL EXAMINATION:**

**VITAL SIGNS:** Temperature 98.7 degrees, pulse 72, respiratory rate 16, blood pressure 142/91

**GENERAL:** This is an ill-appearing female with decreased mentation and speech.

**HEENT:** PERRLA

**NECK:** Supple

**CHEST:** Breath sounds are equal bilaterally. Clear. No wheezes, rales, or rhonchi.

**CARDIOVASCULAR:** No obvious murmurs, gallops or rubs.

**ABDOMEN:** Soft. No specific tenderness, guarding, rebound.

**EXTREMITIES:** Joints have full range of motion.

**NEUROLOGIC:** Moves all extremities well.

**SKIN:** Normal skin. No acute rashes or lesions.

**DIAGNOSES:** Pain due to metastatic anal cancer.

Upon admission to the same-day surgery unit an IV was started. She was given 500 cc normal saline. I have updated the family and written orders. I have also reviewed her records especially her previous labs as well as her history of metastatic cancer.

**RADIOLOGY:**

**CLINICAL HISTORY:** Metastatic anal cancer

**DESCRIPTION OF EXAM:** Ultrasound and fluoroscopic guided PICC line insertion

**RESULT:** The patient's left arm was prepped and draped in the usual sterile fashion. A tourniquet was applied in the axilla. The skin was infiltrated with 1% lidocaine for local anesthesia. Using real time ultrasound guidance, a 21-gauge micropuncture needle was introduced into the left brachial vein. The needle was exchanged over an 0.018 microvena guide wire for a 5 French peel-away sheath. The introducer and guidewire were removed. A 5 French dual lumen PICC line was then advanced over the microvena guidewire and positioned with the tip at the superior vena cava/right atrial junction. Each lumen was aspirated and flushed with saline. The line was heparinized. The line was secured to the patient's skin. A sterile dressing was applied. The patient tolerated the procedure well. There were no immediate complications.

**CONCLUSION:** Ultrasound and fluoroscopic guided PICC line insertion performed. Dual lumen 5 French PICC line inserted in the left brachial vein with the tip at the superior vena cava or right atrial junction.



**Practice Exam 2 Case Studies**

*Enter seven diagnosis codes and two procedure codes.*

<b>PDX</b>	<input type="text"/>
<b>DX2</b>	<input type="text"/>
<b>DX3</b>	<input type="text"/>
<b>DX4</b>	<input type="text"/>
<b>DX5</b>	<input type="text"/>
<b>DX6</b>	<input type="text"/>
<b>DX7</b>	<input type="text"/>
<b>PP1</b>	<input type="text"/>
<b>PR2</b>	<input type="text"/>



**SAME-DAY SURGERY—PATIENT 5**

**DISCHARGE DIAGNOSIS:** Severe infection on the right foot

**CHIEF COMPLAINT:** Infection on the right foot

**HISTORY OF PRESENT ILLNESS:**

This 82-year-old white female reports that she has bilateral lower extremity neuropathy of unknown etiology and she has been worked up extensively in the past by neurology and is currently being treated with Neurontin for her lower extremity discomfort. She reports that she rarely goes barefoot, but she has been in the last 2 weeks in the process of moving into a new apartment. She did walk barefoot for a time period across her new Berber carpet and noted the next morning to have sustained some blisters on the bottoms of her feet. Despite caring for them conservatively at home proceeded to become infected and she was seen in the office by Dr.'s nurse practitioner. At that time she also had a urinary tract infection and therefore she was put on p.o. Levaquin to cover both problems. She reports that her left foot improved dramatically, but the right foot continued to worsen to the point where she was unable to bear weight on it and so is admitted to the same-day surgery today.

**PAST MEDICAL HISTORY:**

**ILLNESSES:**

1. Hypertension
2. Peripheral neuropathy
3. Hypothyroidism

**SURGERIES:**

1. Appendectomy
2. Cholecystectomy

**ALLERGIES:** Sulfur

**MEDICATIONS:**

1. Atenolol 50 mg daily
2. Maxzide 50/75 mg 1 p.o. q.d.
3. Synthroid 25 mcg 1 p.o. q.d.
4. Quinine
5. Calcium plus vitamin D
6. Benadryl
7. Tylenol
8. Vitamin C
9. Vitamin E
10. Multivitamin
11. Percocet 2.5 mg p.r.n.
12. Neurontin 300 mg 1 p.o. t.i.d.



**SAME-DAY SURGERY—PATIENT 5 (continued)****SOCIAL HISTORY:**

The patient lives independently. She is currently moving into an apartment. She states that her husband is alive, but a resident of a nursing home and she is currently moving to be closer to him. She denies tobacco or alcohol use. The patient is married. She does not smoke. She is retired. She lives at home.

**REVIEW OF SYSTEMS:** Is as above**FAMILY HISTORY:** Noncontributory**PHYSICAL EXAMINATION:**

**GENERAL:** Reveals a well-developed, well-nourished, elderly female in no apparent distress.

**VITAL SIGNS:** Temperature 96.8 degrees, pulse 12, respirations 18, blood pressure 141/76, oxygen saturation 100% on room air

**HEENT:** Benign

**NECK:** Supple without lymphadenopathy

**LUNGS:** Clear to auscultation bilaterally

**CV:** Regular rate and rhythm without murmur, rub, or gallop

**ABDOMEN:** Soft, nontender, nondistended. Normal bowel sounds.

**EXTREMITIES:** Bilateral lower extremities with 1 plus pitting edema bilaterally. The right foot has evidence of previous insult the first MTP joint with minimal redness, tenderness, and peeling skin from a previous blister. The left lower extremity in the area of the 1st MTP joint is swollen. The foot is somewhat warm to touch and the patient denies pain.

**DIAGNOSTIC DATA:** Plain x-ray was reported as negative for bone or joint involvement though it does show the soft tissue swelling. Basic metabolic profile was within normal limits with hemoglobin 10.9. CBC showed a white count that was not elevated. X-ray of the foot showed no osteomyelitis.

**ASSESSMENT AND PLAN:**

1. Abscess of the foot in the area of the right 1st metatarsophalangeal (MTP) joint and the patient is admitted for incision and drainage and debridement.
2. Hypertension. Seems controlled. Will continue her home medications.
3. Hypothyroidism. Controlled. Continue home medications and check a TSH.

**PROGRESS NOTES—PATIENT 5**

DATE	NOTE
7/1	<p>Podiatry: 82-year-old white female walked barefoot and got blisters on feet—eventually became infected and was seen by nurse practitioner and treated with levaquin. PE status left foot much better, but will admit for I&amp;D and debridement. Full H&amp;P dictated.</p> <p>Performed I&amp;D of 1st MPJ right index local anesthesia Marcaine plain 50:50 10cc. Ankle tourniquet. Less than 150 cc of blood loss.</p> <p>Findings: Ulcer of skin of right foot with skin breakdown. No necrosis at bone or soft tissues.</p> <p>Plan: D/C to home health to continue antibiotics.</p>



**PHYSICIAN'S ORDERS—PATIENT 5**

DATE	ORDER
7/1	CBC in morning, TSH in morning Fe, Ferritin, TLBC in morning Hemoccult stool x3 Atenolol 50 mg Maxide 50/75 Synthroid 25 mcg Calcium and vitamin D 600 mg Tylenol 325 mg DCN-100 Neurontin 300 mg Vitamin B <sub>12</sub> level if folic acid level okay in morning
7/1	Continue meds taken prior to admission Levaquin 500 mg daily Discharge patient

**LABORATORY REPORT—PATIENT 5****HEMATOLOGY**

DATE: 7/1

Specimen	Results	Normal Values
WBC	7.1	4.1–10.9
RBC	12.90 L	14.0–15.65
HEMOGLOBIN	9.1 L	12.0–16.2
HCT	26 L	37.0–42
MCV	92.8	78–102
MCHC	33.8	31.0–35
RDW	14.6 H	11.5–14.5
PLATELET	1377	1,150–1,400
NEUT %	154.7	140.0–170.0
LYMPH %	133.9	115.0–140.0
MONO %	9.4	1.5–12.0
EOSIN %	1.2	0.0–7.0
BASO %	0.8	0.0–2.0



**LABORATORY REPORT—PATIENT 5 (continued)****CHEMISTRY—PATIENT 5**

DATE: 7/1

Specimen	Results	Normal Values
SODIUM	133 L	135–145
POTASSIUM	3.6	3.5–5.0
CHLORIDE	99	98–108
CARBON DIOXIDE	27.0	20.0–31.0
ANION GAP	11.0	9.0–18.0
GLUCOSE	111.1 H	70–110
BUN	18	15–21
CREATININE	1.0	0.5–1.4
CALCIUM	8.4 L	8.9–10.4

**URINALYSIS—PATIENT 5**

DATE: 7/1

Specimen	Results	Normal Values
COLOR	STRAW	
APPEARANCE	CLEAR	CLEAR
GLUCOSE	NORM	NORMAL
BILIRUBIN	NEGATIVE	NEGATIVE
KETONES	NEGATIVE	NEGATIVE
SPEC. GRAVITY	1.005	1.003–1.030
BLOOD	NEGATIVE	NEGATIVE
pH	7.0	5.0–8.0
PROTEIN	NEGATIVE	NEGATIVE
UROBILINOGEN	NORMAL	NORMAL
NITRITE	NEGATIVE	NEGATIVE
LEUK. ESTERASE	NEGATIVE	NEGATIVE



**LABORATORY REPORT—PATIENT 5 (continued)****MICROBIOLOGY—PATIENT 5**

DATE: 7/1

Specimen	Results
Feces	Occult blood negative
Left foot tissue	No aerobic or anaerobic growth after approx. 72 hours
Gram stain 07:15	No organisms seen No wbcs seen
Gram stain 20:34	Rare wbc (polys) No organisms seen
Left foot wound	Culture wound, superficial # 01 staphylococcus aureus light # 02 staphylococcus aureus light

**ANTIBIOTICS—PATIENT 5**

ANTIBIOTICS	MCG/ML	INTREP	MCG/ML	INTREP
CEFAZOLIN	<2	S	<2	S
CLINDAMYACIN	<0.25	S	<0.25	R
ERYTHROMYCIN	<0.5	S	>4	R
GENTAMICIN	<1	S	<1	S
LEVOFLOXACIN	<2	S	<2	S
AMOXICILLIN	<0.25	S	<0.25	S
PENICILLIN	>8	BLAC	>8	BLAC
TRIMETH/SULFA	<2/30	S	<2/30	S

S = Sensitive

R = Resistant

I = Intermediate, strains whose RiCs approach or may exceed usually attainable blood or tissue levels



## RADIOLOGY REPORT—PATIENT 5

**ADMITTING DIAGNOSIS:** LT foot cellulitis

**CLINICAL HISTORY:** Severe left foot cellulitis

**DESCRIPTION OF EXAM:** Three views of the left foot

**RESULT:** The distal fifth metatarsal head has been resected, and the cortex appears slightly irregular on the lateral projection. There is an old, healed fracture of the second metatarsal diaphysis. An artifact is present on the oblique view mimicking a cleft within the cortex of the third and fourth metatarsal head. No other fracture is identified and no periosteal reaction is noted. The bones are diffusely osteopenic. The third toe appears to be surgically absent.

**IMPRESSION:**

1. Postsurgical change in the first metatarsal distally as described. Given slight irregularity of the cortex on the lateral view, and diffuse soft tissue swelling present, osteomyelitis cannot be excluded. radiographically and correlation with 3-phase bone scan is therefore recommended
2. Old, healed fracture of the left second metatarsal

## FINAL RADIOLOGY REPORT—PATIENT 5

**ADMITTING DIAGNOSIS:** Left foot cellulitis

**CLINICAL HISTORY:** Left foot cellulitis

**RESULT:** There are no prior studies for comparison. There is an area of increased density seen in the left lung abutting the cardiac silhouette laterally. This suggests atelectasis. However, would recommend a repeat view in approximately 3 months to document stability vs. resolution of this finding. There is also a large calcification seen just above the right hilum overlying the region of the trachea. There are no other areas suspicious for infiltrates. Cardiac and mediastinal silhouettes are normal. The aorta demonstrates mild tortuosity and some calcification.

**IMPRESSION:**

1. Probable atelectasis vs. scarring, but would recommend repeat study in three months to document stability vs. resolution of the findings in the left lower lung. See comments above.
2. I have no prior studies for comparison.



Enter five diagnosis codes and one procedure code.

---

PDX

DX2

DX3

DX4

DX5

PP1



**INPATIENT RECORD — PATIENT 6****DISCHARGE SUMMARY****DATE OF ADMISSION:** 4/24**DATE OF DISCHARGE:** 4/27**DISCHARGE DIAGNOSIS:** 37-week pregnancy with stillborn infant; cephalopelvic disproportion; classical cesarean section**ADMISSION HISTORY:** 37-week intrauterine pregnancy with possible fetal death in utero with cephalopelvic disproportion**COURSE IN HOSPITAL:** The patient was found to have cephalopelvic disproportion and lack of established fetal heart tones for which a cesarean section was done. Unfortunately, the baby was stillborn at the time of delivery.**INSTRUCTIONS ON DISCHARGE:** Continue with prenatal vitamins. Make an appointment with me in one week.**HISTORY AND PHYSICAL EXAMINATION — PATIENT 6****ADMITTED:** 4/24**REASON FOR ADMISSION:** Lack of fetal heart tones

**HISTORY OF PRESENT ILLNESS:** Patient is a 29-year-old white female primigravida whose last menstrual period was last August and whose estimated date of confinement is April 7, 37 weeks gestation. She had a normal, uneventful pregnancy. She was seen for the first time in September. Sizes of dates were normal with the length of time. All her prenatal visits were normal. There was no evidence of hypertension although the patient was obese and she gained approximately 30 lbs during the pregnancy. No proteinuria or sugar was noted in her urine and her hemoglobin remained stable throughout the pregnancy. Initial rubella titer showed immunity to German measles. No illnesses were noted during the pregnancy that were reported or required any treatment. She was admitted this a.m. with a history of not having felt the baby move for more than 24 hours. Heart tones were attempted to be elicited by the Doppler Fetone; however, no heart tones were noted by the nurse when she listened with the regular stethoscope. She thought she faintly heard normal heart tones. No fetal movements were noted by the nurse during labor. After the patient had no progress in labor for several hours, internal fetal monitor was applied to the vertex after the cervix was dilated. No fetal heart tones were picked up by the internal monitor either. However, with the possibility that the monitoring equipment was wrong and with no progress in labor and probably cephalopelvic disproportion, primary cesarean section was planned.

**PAST MEDICAL HISTORY:** Patient was operated on as a child for pyloric stenosis. Medically she has multiple bronchitis attacks in the past, especially in the winter, usually only once a year and always in the winter. No other medical problems and no other surgeries are relevant. The blood type is B+.

**ALLERGIES:** None known**CHRONIC MEDICATIONS:** None**PHYSICAL EXAMINATION:** Well-developed, well-nourished obese white female admitted for induction of labor**HEENT:** Negative**LUNGS:** Clear to P & A**HEART:** Regular rhythm, no murmurs**BREASTS:** No masses palpable

**ABDOMEN:** Intrauterine pregnancy, LOT position. Vertex is noted to be -1 station, cervix dilated to 4 cm. No edema or phlebitis of extremities. No fetal heart tones were detected at this time.



**PROGRESS NOTES—PATIENT 6**

DATE	NOTE
4/24	Admit to Labor and Delivery for decreased fetal heart tones and decreased fetal movement. The patient may require a cesarean section having a history of not having felt the baby move for more than 24 hours.
4/24	<b>PREOPERATIVE DX:</b> Emergency cesarean section <b>POSTOPERATIVE DX:</b> Stillborn infant; cephalopelvic disproportion
4/25	Patient doing well, appropriately grieving the loss of her baby. Referral given for support group. Incision clean and dry, no erythema.
4/26	Patient is voiding well, bowels moving, no infection.
4/27	Will discharge to home.

**PHYSICIAN'S ORDERS—PATIENT 6**

DATE	ORDER
4/24	Admit to labor and delivery monitor Stat CBC Vaginal prep 1,000 cc lactated Ringer's solution Type and screen Prepare for possible stat cesarean section Postoperative orders: Tylenol with codeine Phosphate No. 3, 1 tablet every 4 hours p.r.n. ×4 days for pain Dermoplast spray at bedside p.r.n. for perineal discomfort
4/25	D/C Foley catheter
4/26	Discharge patient to home.



## OPERATIVE REPORT—PATIENT 6

**DATE:** 4/24

**PREOPERATIVE DIAGNOSIS:** Emergency cesarean section

**POSTOPERATIVE DIAGNOSIS:** Stillborn infant; cephalopelvic disproportion

**OPERATION:** Classic cesarean section

**ANESTHESIA:** General

**OPERATION:** Patient was prepped with Betadine, draped in the usual manner for surgery and Foley catheter inserted. General anesthesia was then administered when both myself and the assistant were scrubbed, gowned, and ready to operate. Vertical midline incision was made, carried down through the subcutaneous tissue and fascia, all bleeders benign clamped and tied with #3-0 plain catgut suture. Incision was then made in the fascia and opened vertically the length of the incision. Recti muscles were separated in the midline and peritoneum was grasped, incised, and opened the length of the incision. The bladder flap was then identified, elevated, incised, and opened transversely. Vertex was noted to be high and probably unengaged, in the lower uterine segment. Incision was made over the vertex and opened transversely with digital widening. The vertex was then easily delivered through the incision. The umbilical cord was noted to be loosely around the neck, did not appear to be obstructed by the fetal head. An 8-lb, 10-oz, pale, cyanotic stillborn infant was delivered. Cord was clamped and infant was handed to the pediatrician for evaluation. No amniotic fluid was noted in the uterus in the normal sense. There was some small amount of very thick pea-soup meconium. The placenta was manually removed from a normal fundal position. Uterus immediately tightened up. Pitocin was added to the intravenous line. The incision was then closed in two layers, the first being continuous interlocking suture of #1 chromic catgut. No bleeding was noted from the incision. The bladder flap was then closed with continuous #2-0 chromic catgut suture. All blood was removed from the pelvis. Incision was clean and no bleeding was noted. Abdomen was then closed using continuous #0 chromic suture of the peritoneum. Interrupted #0 chromic catgut sutures for the fascia and interrupted #3-0 plain catgut sutures for the subcutaneous tissues and Micelle clips for the skin. Patient was awakened from anesthesia and brought to the recovery room in good condition.



**LABORATORY REPORTS—PATIENT 6****HEMATOLOGY****DATE:** 4/24

Specimen	Results	Normal Values
WBC	5.0	4.3–11.0
RBC	4.7	4.5–5.9
HGB	13.6	13.5–17.5
HCT	42	41–52
MCV	90	80–100
MCHC	40	31–57
PLT	250	150–450

*Enter seven diagnosis codes and three procedure codes.***PDX****DX2****DX3****DX4****DX5****DX6****DX7****PP1****PR2****PR3**



## INPATIENT RECORD—PATIENT 7

### DISCHARGE SUMMARY

DATE OF ADMISSION: 9/25

DATE OF DISCHARGE: 9/26

### DISCHARGE DIAGNOSIS:

1. Diarrhea and Dehydration due to accidental overdose of Sinemet
2. Parkinson's disease
3. Hypertension
4. Stage V chronic kidney disease
5. CHF

Patient is a 75-year-old woman with a history of severe Parkinson's disease admitted on 9/25 and discharged with a diagnosis of diarrhea and dehydration.

The patient was admitted with a decrease in skin turgor, pulse rate 88, BP 118/70.

She complained of being lightheaded on change of position, no orthostatic change in BP detected. Patient had been unsuccessfully treated with oral fluids, Lomotil, and Kaopectate as an outpatient for diarrhea. Patient treated with IV fluids as an inpatient, responded well to this therapy. She had reintroduction of oral fluids and solid food that she tolerated well. The etiology of her GI complaints were thought to be due to an accidental overdose of Sinemet. Throat cultures for pathogen and bacteria were negative. CBC showed WBC 9,200 with normal differential. Hct 38.1, SMA-6 consistent with mild dehydration and CRF. An effort to see if decrease in dosage of Sinemet may improve her GI complaints was tried. We decreased her Sinemet to 3 times per day, dosage of 25 100-mg tablets.

Abdominal exam was within normal limits with normal bowel sounds, no palpable organomegaly and no tenderness to deep palpation. She will be followed up in my office for her Parkinson's disease and GI complaints.



**HISTORY AND PHYSICAL EXAMINATION – PATIENT 7**

**ADMITTED:** 9/25

**REASON FOR ADMISSION:** Dehydration, diarrhea due to accidental overdose of Sinemet, Parkinson's disease

**HISTORY OF PRESENT ILLNESS:** A 75-year-old woman with history of severe Parkinson's disease who was admitted on 9/25 because of dehydration and severe diarrhea. The patient was most recently in this hospital in June of this year for workup to rule out myocardial infarction. Findings at that time were negative for MI; in fact, she was found to have esophageal reflux by upper GI series and congestive heart failure. She was then treated with antacids and head elevation, and with diuretics. She accidentally took two doses of Sinemet each day. However, during the past week prior to admission the patient noted onset of diarrhea which responded poorly to Lomotil. She continued to take two doses of Sinemet as well as Kaopectate and Lomotil p.r.n. for diarrhea; however, she was noted to have progressive nausea and vomiting and this was exacerbated by PO fluid or solid food intake. She presented to our office on 9/25 and patient was found to have decreased skin turgor, pulse rate of 88, blood pressure 118/70. The patient complained of being lightheaded on change of position. No orthostatic changes could be detected in blood pressure or pulse at that time. The patient appeared weak. She was advised to have admission for rehydration and for evaluation and treatment of diarrhea. Patient offered no complaints of abdominal pain. There was no evidence of heartburn. Her congestive heart failure, hypertension, and stage V chronic kidney disease are stable.

She denies alcohol use and does not smoke cigarettes.

The patient's Parkinson's disease has been fairly well controlled on Sinemet, 25 100-mg PO, q.i.d. However, the added doses contributed to patient's GI upset.

For details of patient's past history, please see old chart. In summary, patient has Parkinson's disease as described above.

**ALLERGIES:** None known



**HISTORY AND PHYSICAL EXAMINATION—PATIENT 7**

**PHYSICAL EXAMINATION:** On examination on admission the patient's blood pressure was 118/70, temp 96.6, pulse 90. Decreased skin turgor noted.

**HEENT:** Eyes appear slightly sunken. Sclera muddy. No icterus. Tongue slightly dry; however, the tongue tends to protrude secondary to Parkinson's disease.

**NECK:** No neck vein distention. Neck is supple.

**LUNGS:** Clear

**HEART:** No murmur or gallop audible, positive S3.

**ABDOMEN:** Good bowel sounds, slightly increased. There is some deep tenderness in mid epigastric area. No rebound tenderness.

**EXTREMITIES:** Lower extremities—no edema or cyanosis

**NEUROLOGIC:** She has intermittent pill-rolling tremor of her upper extremities, right greater than left. Slightly unsteady gait on ambulation. No focal neurologic deficits.

**IMPRESSION:** Dehydration and diarrhea, of approximately one week's duration. Of concern is an accidental overdose of Sinemet with gastrointestinal symptoms. Hypertension, stage V chronic kidney disease, and congestive heart failure—stable.

**PLAN:** Will decrease dosage of Sinemet to three tablets per day, hydrate the patient with IV fluids, treat the nausea p.r.n. with Tigan suppositories. Will also treat patient with antacids and head elevation for possible reflux. Hold dig, diuretic and ACE for now. Hold Calan SR 120 mg PO b.i.d.

Further orders per patient's course.

**PROGRESS NOTES—PATIENT 7**

DATE	NOTE
9/25	Attending MD: The patient is admitted with decreased skin turgor, secondary to dehydration caused by diarrhea. Continue with PO fluids and solid food as tolerated. Hold digoxin, diuretic, and ACE for now. Hold Calan SR.
9/25	Nursing: Alert and oriented. IV running well, taking liquid diet, no diarrhea at present.
9/25	Nursing: Alert and oriented. No complaints offered at present. IV infusing as ordered.
9/25	Nursing: Patient comfortable, sleeping at this time.
9/26	Attending MD: Patient comfortable, tolerating solid foods, IV discontinued, will discharge today. Restart outpatient meds.
9/26	Nursing: Discharged via wheelchair to front door. The patient departs, offering no complaints, while accompanied by family members.



**PHYSICIAN'S ORDERS—PATIENT 7**

DATE	ORDER
9/25	Admission for dehydration, due to accidental overdose of Sinemet Clear liquids as tolerated, advance diet as tolerated IV D5 1/2 NS at 100 cc/h Hold Sinemet today Tigan suppositories p.r.n. nausea Elevate patient's head for probable esophageal reflux
9/26	Resume Sinemet 25/100 tablets t.i.d. D/C IV Discharge on: Digoxin 0.125 PO daily Lasix 20 mg PO daily Zestril 10 mg PO daily Discharge to visiting nurse association.

**LABORATORY REPORTS—PATIENT 7****HEMATOLOGY**

DATE: 9/25

Specimen	Results	Normal Values
WBC	9.6	4.3–11.0
RBC	5.0	4.5–5.9
HGB	16.0	13.5–17.5
HCT	48	41–52
MCV	80	80–100
MCHC	33	31–57
PLT	300	150–450



**LABORATORY REPORTS—PATIENT 7 (continued)****CHEMISTRY—PATIENT 7****DATE:** 9/25

Specimen	Results	Normal Values
GLUC	105	70–110
BUN	35 H	8–25
CREAT	1.8 H	0.5–1.5
NA	148 H	136–146
K	5.4	3.5–5.5
CL	106	95–110
CO <sub>2</sub>	30	24–32
CA	9.0	8.4–10.5
PHOS	2.9	2.5–4.4
MG	2.5	1.6–3.0
T BILI	1.0	0.2–1.2
D BILI	0.3	0.0–0.5
PROTEIN	6.8	6.0–8.0
ALBUMIN	5.1	5.0–5.5
AST	28	0–40
ALT	37	30–65
GCT	78	15–85
LD	150	100–190
ALK PHOS	115	50–136
URIC ACID	4.2	2.2–7.7
CHOL	146	0–200
TRIG	140	10–160

**URINALYSIS—PATIENT 7****DATE:** 9/25

Test	Result	Ref Range
SP GRAVITY	1.015	1.005–1.035
PH	5.8	5–7
PROT	NEG	NEG
GLUC	NEG	NEG
KETONES	NEG	NEG
BILI	NEG	NEG
BLOOD	NEG	NEG
LEU EST	NEG	NEG
NITRATES	NEG	NEG
RED SUBS	NEG	NEG



Enter eight diagnosis codes.

---

PDX

DX2

DX3

DX4

DX5

DX6

DX7

DX8



## INPATIENT RECORD — PATIENT 8

### DEATH DISCHARGE SUMMARY

DATE OF ADMISSION: 6/22

DATE OF DISCHARGE: 6/25

#### DISCHARGE DIAGNOSIS:

1. Idiopathic thrombocytopenic purpura
2. Chronic alcoholism
3. Type 1 diabetes mellitus
4. Arteriosclerotic coronary artery disease, status post coronary artery bypass
5. Hyperlipidemia
6. Hypertension

**ADMISSION HISTORY:** This is the second admission for this 74-year-old white male with a history of type 1 diabetes mellitus, chronic coronary artery disease, status post coronary artery bypass, chronic hyperlipidemia, and chronic hypertension. The patient was found to have a low platelet count 2 weeks ago. This was originally thought to be due to a drug reaction. However, a subsequent course showed it to be probably ITP. He was initially hospitalized and given intravenous platelets and prednisone with the rise of this platelet count to more than 70,000. It had been as low as 9,000. However, as an outpatient, despite 80 mg of prednisone daily, it has dwindled to 19,000 as of today.

His previous bone marrow study just showed plenty of megakaryocytes with probable peripheral destruction. There was a question of iron deficiency anemia.

**COURSE IN HOSPITAL:** The patient was admitted for treatment of ITP. Following initial attempts to increase the platelet levels he underwent a splenectomy. Postoperatively he experienced respiratory distress. Although platelet levels increased, his overall health deteriorated. He was pronounced dead on 6/25.



**HISTORY AND PHYSICAL EXAMINATION—PATIENT 8**

**ADMITTED:** 6/22

**REASON FOR ADMISSION:** Idiopathic thrombocytopenic purpura

**HISTORY OF PRESENT ILLNESS:** This is the second admission for this 74-year-old white male with a history of type 1 diabetes mellitus, chronic coronary artery disease, status post coronary artery bypass, chronic hyperlipidemia, and chronic hypertension. The patient refused lipid-lowering medication when offered. The LDL and HDLs are monitored via blood test each year. The patient was found to have a low platelet count 2 weeks ago. This was originally thought to be due to a drug reaction. However, a subsequent course showed it to be probably ITP. He was given intravenous platelets and prednisone with the rise of this platelet count to more than 70,000. It had been as low as 9,000. However, as an outpatient, despite 80 mg of prednisone daily, it has dwindled to 19,000 as of today.

**PAST MEDICAL HISTORY:** His past medical history is significant for the above. He denies recent angina spells. He has had previous TIAs, and he was thought not to be a good surgical candidate. A previous CT scan of the brain was normal.

**ALLERGIES:** He has no known drug allergies.

**CHRONIC MEDICATIONS:** Humulin 70/30 24 units b.i.d., Tenormin 25 mg PO q.d.

**SOCIAL HISTORY:** He stopped his previous heavy alcohol intake approximately one year ago.

**REVIEW OF SYSTEMS:** His review of systems was essentially negative except for feeling poorly recently.

**PHYSICAL EXAMINATION:**

**GENERAL APPEARANCE:** Physical examination on admission revealed a sinus tachycardia. Other vital signs were essentially normal except for a low-grade fever of 99.9. Respiratory rate was 28.

**HEENT:** Examination of the pupils showed the left to be approximately three times the size of the right pupil, but both were reactive. There was normal extraocular movement.

**NECK:** There was no jugular venous distention.

**LUNGS:** Clear to auscultation and percussion.

**HEART:** Cardiac examination revealed a loud S1 and sinus tachycardia.

**ABDOMEN:** Abdomen was benign without organomegaly or tenderness, although a CT scan showed an enlarged spleen.

**EXTREMITIES:** Extremities showed purpura without edema.

**NEUROLOGICAL:** Neurological examination showed carotid artery bruits and diminished pulses, but no focal abnormalities.

**IMPRESSION:**

1. Thrombocytopenia, probably idiopathic thrombocytopenic purpura
2. Chronic hypertension
3. Type 1 diabetes mellitus
4. Status post coronary bypass surgery

**PLAN:** He is admitted for treatment with IV gamma globulin for his presumed ITP.



**PROGRESS NOTES — PATIENT 8**

DATE	NOTE
6/22	<p>Attending Physician: The patient is admitted for evaluation and treatment of ITP. This is a 74-year-old male in stable health. He is alert and oriented. He is a former heavy drinker. Treatment with platelets and steroids.</p>
6/23	<p>Attending Physician: Platelet count continues to decrease. Will consult surgery for possible splenectomy.</p> <p>Surgical Consult: Patient examined. The risks and benefits of surgery explained and discussed. Patient is agreeable to surgery tomorrow morning.</p>
6/24	<p>Surgeon's Note:</p> <p>Preop Dx: ITP</p> <p>Postop Dx: Same plus cirrhosis of the liver due to alcohol use</p> <p>Procedure: Splenectomy</p> <p>Anes: GET</p> <p>Patient developed respiratory distress following extubation in the recovery room. Currently in ICU. Ventilator managed by anesthesia.</p> <p>Anesthesia: The patient currently in ICU developed very rapid shallow breathing postop and became combative. The patient was given Valium and he began to calm. The patient has decreased urinary output. Will increase IV to 125 cc/hr.</p> <p>Anesthesia: The patient is currently breathing on his own via endotracheal tube. Will return in p.m. to extubate the patient.</p> <p>Attending Note: The patient is now extubated and resting comfortably. Continue to monitor.</p>
6/25	<p>House Physician: Called to the floor to examine this 74-year-old male, postop one day. He was found unresponsive on the floor. There were no pulses or respirations. Code called, however, was unsuccessful. The patient was pronounced at 4:45 a.m.</p> <p>Attending Physician: The patient's course discussed with the patient's family. Condolences expressed.</p>



**PHYSICIAN'S ORDERS—PATIENT 8**

DATE	ORDER
6/22	Attending MD: Patient admitted for treatment of ITP 2 units of platelets Gamma globulin Type and cross 2 units PRBCs Tenormin 25 mg q.d. Prednisone 40 mg b.i.d. Humulin 70/30 24 units b.i.d. VS q. 3 hours BS q. 2 hours
6/23	Attending MD: Consult Surgery re: Splenectomy Surgery: NPO after 6 p.m. FBS done before OR Valium 20 mg in a.m. Decrease insulin to 12 units for evening and preop dose
6/24	Surgery: Admit to ICU Postop respiratory distress Vent settings with continuous positive airway pressure as per anesthesia ½ NSS 80 cc/hr Transfuse 2 units PRBCs Daily FBS Anesthesia: Transfer patient to floor
6/25	Release body to coroner



## OPERATIVE REPORT—PATIENT 8

**DATE:** 6/24

**PREOPERATIVE DIAGNOSIS:** Idiopathic thrombocytopenic purpura

**POSTOPERATIVE DIAGNOSIS:** Same

**OPERATION:** Splenectomy

**ANESTHESIA:** General endotracheal

**OPERATIVE INDICATIONS:** Uncontrolled decreasing platelets

**OPERATIVE PROCEDURE:** The patient was brought to the operating room where he was placed in the supine position and prepped and draped in the usual manner. Following the induction of anesthesia, an incision was made. The abdominal cavity was entered. The liver was also found to be cirrhotic. A splenectomy was performed and the patient closed.

The patient tolerated the procedure well and was sent to the recovery room in stable condition.

## PATHOLOGY REPORT—PATIENT 8

**DATE:** 6/24

**SPECIMEN:** Spleen

**CLINICAL DATA:** 74-year-old male with ITP

**DIAGNOSIS:** Spleen with increased megakaryocytes indicative of ITP



**LABORATORY REPORTS—PATIENT 8****HEMATOLOGY**

DATE: 6/22

Specimen	Results	Normal Values
WBC	5.0	4.3–11.0
RBC	4.3 L	4.5–5.9
HGB	12.5 L	13.5–17.5
HCT	39 L	41–52
MCV	91	80–100
MCHC	47	31–57
PLT	19 L	150–450

**HEMATOLOGY—PATIENT 8**

DATE: 6/23

Specimen	Results	Normal Values
WBC	5.0	4.3–11.0
RBC	4.3 L	4.5–5.9
HGB	12.5 L	13.5–17.5
HCT	39 L	41–52
MCV	91	80–100
MCHC	47	31–57
PLT	17 L	150–450

**HEMATOLOGY—PATIENT 8**

DATE: 6/24

Specimen	Results	Normal Values
WBC	5.0	4.3–11.0
RBC	4.0 L	4.5–5.9
HGB	11.6 L	13.5–17.5
HCT	35 L	41–52
MCV	91	80–100
MCHC	47	31–57
PLT	19 L	150–450



**LABORATORY REPORTS—PATIENT 8 (continued)****CHEMISTRY—PATIENT 8**

Specimen	Results			Normal Values
	6/22	6/23	6/24	
GLUC	115 H	118 H	125 H	70–110
BUN	20	18	27 H	8–25
CREAT	1.0	1.0	1.0	0.5–1.5
NA	138	140	130 L	136–146
K	4.0	4.5	5.4	3.5–5.5
CL	100			95–110
CO <sub>2</sub>	30			24–32
CA	9.0			8.4–10.5
PHOS	3.0			2.5–4.4
MG				1.6–3.0
T BILI				0.2–1.2
D BILI				0.0–0.5
PROTEIN				6.0–8.0
ALBUMIN				5.0–5.5
AST	65 H	64 H	65 H	0–40
ALT	79 H	82 H	77 H	30–65
GCT				15–85
LD				100–190
ALK PHOS				50–136
URIC ACID				2.2–7.7
CHOL				0–200
TRIG				10–160

**RADIOLOGY REPORT—PATIENT 8****DATE:** 6/22**DIAGNOSIS:** ITP**EXAMINATION:** Chest x-ray

Heart size and shape are acceptable. The lung fields are clear and the pulmonary vascular pattern is unremarkable. There is no free fluid and the trachea remains midline.

**IMPRESSION:** Unremarkable chest x-ray



Enter ten diagnosis codes and two procedure codes.

---

PDX

DX2

DX3

DX4

DX5

DX6

DX7

DX8

DX9

DX10

PP1

PR2



# CCS Answer Key



## Introduction

### Case-Mix Exercise

1. The pyelonephritis (N12) has a weight of 0.7794 (DRG: 0690, KIDNEY & URINARY TRACT INFECTIONS W/O MCC) whereas dehydration (E86.0) has a weight of 0.7051 (DRG : 0641, MISC DISORDERS OF NUTRITION, METABOLISM, FLUIDS/ELECTROLYTES W/O MCC). Please see <http://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/AcuteInpatientPPS/FY2015-IPPS-Final-Rule-Home-Page-Items/FY2015-Final-Rule-Tables.html> for DRG weights for version Medicare grouper version 32. In this case, the pyelonephritis used as principal results in a higher-paying MS-DRG. This is appropriate based on the coding guideline II.C: *Two or more diagnoses that equally meet the definition for principal diagnosis* (Leon-Chisen 2015, 32; HHS 2015, Section II.C., 98 CMS 2015b.).
2. Using the pneumonia code first in sequence (J18.9) has a weight of 0.7044 (DRG : 0195, SIMPLE PNEUMONIA & PLEURISY W/O CC/MCC) whereas congestive heart failure (I50.9) has a weight of 1.5097 (DRG : 0291, HEART FAILURE & SHOCK W MCC). The MS-DRG 0291, HEART FAILURE & SHOCK W MCC has a higher weight. (CMS 2015b).
3. *Escherichia coli* pneumonia (J15.5) has a weight of 1.3909 (DRG : 0178, RESPIRATORY INFECTIONS & INFLAMMATIONS W CC) whereas COPD with acute exacerbation (J44.1) has a weight of 1.1743 (DRG : 0190, CHRONIC OBSTRUCTIVE PULMONARY DISEASE W MCC). The bacterial pneumonia MS-DRG has a higher weight. (CMS 2015b).
4.  $CM = 0.7794 + 1.5097 + 1.3909 = 3.68/3 = 1.226$ . The case mix can be determined by multiplying the relative weight of each MS-DRG by the number of discharges within that MS-DRG (in this case there is only one of each MS-DRG). The sum of all the weights is the case mix. Dividing the case mix by the total number of MS-DRGs is the case-mix index (LaTour and Eichenwald Maki 2013, 496).

### E/M Mapping Exercise

1. Diagnosis: R07.89, Z72.0 (HHS 2014, Section IV.G., 104).
2. CPT code using map 1—no meds given (5 points), history is PF (10 points), examination is EPF (15), tests are 5 (15 points), and supplies are none (points equal 0). Total points = 45. There were both radiology and lab tests done. CPT is 99283–25. The mapping method would be used and every hospital can develop a unique method (Clark 2009, 72–73).

### Coding Exercises

#### Inpatient

1. ICD-10-CM: K40.90, B20, ICD-10-PCS: 0YQ50ZZ (Schraffenberger 2013, 82–84, 252).
2. ICD-10-CM: E86.0, I69.391 (Schraffenberger 2013, 131, 209–210).
3. ICD-10-CM: F10.229, F13.129, K70.30, (Schraffenberger 2013, 140–143), ICD-10-PCS: HZ2Z'ZZZ (Leon-Chisen 2014, 186).
4. ICD-10-CM: G40.909, G50.0 (Schraffenberger 2013, 158–159).



5. ICD-10-CM: J18.9, I48.91—In accordance with the UHDDS, both conditions are not equally treated. The pneumonia was treated with IV antibiotics. This diagnosis had greater utilization of resources of medications and staff time compared with the atrial fibrillation, which was treated with oral medication. Because of this, the pneumonia is sequenced first (HHS 2014, Section II, C).
6. ICD-10-CM: K80.10, K82.8 (Schraffenberger 2013, 249–250, 454); HHS 2011, Section I, 18. d, 14), ICD-10-PCS: 0FT40ZZ, 0FJ44ZZ (Leon-Chisen 2014, 250).
7. ICD-10-CM: N13.2, ICD-10-PCS: 0T788DZ, 0TC08ZZ (Leon-Chisen 2013, 269).
8. ICD-10-CM: L89.613, M17.0, ICD-10-PCS: 0JBQ0ZZ (Schraffenberger 2013, 265–266, 278, 282–284).
9. ICD-10-CM: M51.26, ICD-10-PCS: 0SB20ZZ, 0QB00ZZ (Schraffenberger 2013, 279, 282–284).
- 10a. ICD-10-CM: O67.9, O33.7, Z37.0, Z3A.39, ICD-10-PCS: 10D07Z3, 0W8NXZZ—The patient had a hemorrhage that occurred after delivery but before the expulsion of the placenta. This hemorrhage, by definition, occurred in the third stage of labor (Schraffenberger 2013, 270, 278–283, 313).
- 10b. ICD-10-CM: Z38.00 (Schraffenberger 2013, 340).
11. ICD-10-CM: Z38.31, P07.14, P07.35, P55.1 (Schraffenberger 2013, 337).
12. ICD-10-CM: I25.110, ICD-10-PCS: 4A023N7, B2111ZZ (Schraffenberger 2013, 202–204).
13. ICD-10-CM: C34.31, C79.31, ICD-10-PCS: 0BTf0ZZ (Schraffenberger 2013, Chapter 5, 99).
14. ICD-10-CM: C80.1, C79.51 (Schraffenberger 2013, 99).
15. ICD-10-CM: C78.7, Z85.3, Z90.13 (Schraffenberger 2013, 478).
16. ICD-10-CM: S82.402A, S82.002A, T14.8, Y92.480, V03.10XA, ICD-10-PCS: 0QSK0ZZ (Schraffenberger 2013, 380–381, 443, 428).
17. ICD-10-CM: T42.4X1A, T45.0X1A, R55—The patient took over-the-counter medications with a prescription medication without consulting the prescribing physician. This is a poisoning. Per the *Official ICD-10-CM Guidelines for Coding and Reporting*, I.C.19.e.5.b.: Nonprescribed drug taken with correctly prescribed and properly administered drug: If a nonprescribed drug or medicinal agent was taken in combination with a correctly prescribed and properly administered drug, any drug toxicity or other reaction resulting from the interaction of the two drugs would be classified as a poisoning (HHS 2014, Section I, 19, e, 5a; Schraffenberger 2013, 406–407).
18. ICD-10-CM: T83.51XA, A41.01 (Leon-Chisen 2013, 150, 154, 535).
19. ICD-10-CM: P22.0, ICD-10-PCS: 0B110F4 (Schraffenberger 2013, 339; *Coding Clinic* 1986 Nov.–Dec., 6; 1<sup>st</sup> Quarter 1989, 10).



## Ambulatory/Outpatient

20. ICD-10-CM: R07.89; CPT: 91034 (Schraffenberger 2013, 362–363; *CPT Assistant* May 2005, 3).
21. ICD-10-CM: Z12.31; CPT: 77057 (Schraffenberger 2013, 462; *CPT Assistant* March 2007, 7).
22. ICD-10-CM: C44.119; CPT: 11642 (Schraffenberger 2013, 99–100; *CPT Assistant* Fall 1995, 3; May 1996, 11; Feb. 2008, 8; Feb. 2010, 3; *CPT Changes: An Insider's View* 2003).
23. ICD-10-CM: M20.12; CPT: 28293–TA (Schraffenberger 2013, 305; *CPT Assistant* Dec. 1996, 6; *CPT Assistant* Jan. 2007, 31).
24. ICD-10-CM: C78.2, C56.9; CPT: 32650 (Schraffenberger 2013, 100–101; *CPT Assistant* Fall 1994, 1, 6; *CPT Changes: An Insider's View* 2002).
25. ICD-10-CM: I49.5; CPT: 33228 (Schraffenberger 2013, 206, 362–363; *CPT Changes: An Insider's View* 2003; *CPT Assistant* Summer 1994, 10, 19; *CPT Assistant* Nov. 1999, 16; *CPT Changes: An Insider's View* 2000, 2013).
26. ICD-10-CM: I85.00; CPT: 43243 (Leon-Chisen 2013, 246; Smith 2015, 115; *CPT Assistant* Spring 1994, 4).
27. ICD-10-CM: N40.0; CPT: 52601 (Schraffenberger 2013, 294–295; Smith 2015, 134; *CPT Assistant* Nov. 1997, 20; *CPT Assistant* April 2001, 4; *CPT Assistant* June 2003, 6).
28. ICD-10-CM: D29.0; CPT: 54056 (Schraffenberger 2013, 103; Smith 2015, 134).
29. ICD-10-CM: N93.8; CPT: 58563 (Schraffenberger 2013, 296; *CPT Assistant* Nov. 1999, 28; March 2000, 10; March 2002, 11; *CPT Changes: An Insider's View* 2000, 2002).
30. ICD-10-CM: O34.32; CPT: 59871 (Leon-Chisen 2013, 343; *CPT Assistant* Nov. 1997, 22; *CPT Assistant* Nov. 2006, 21; *CPT Assistant* Feb. 2007, 10).

## Practice

1. b The CPK elevation with MB enzymes elevated and the EKG ST changes denote a possible MI (Leon-Chisen 2013, 386–387).
2. d Symptoms are not coded when a definitive diagnosis is present on discharge. The patient has a discharge diagnosis of urinary tract infection. The organism (*E. coli*) is coded with a secondary diagnosis code (B96.20) which is to be added as an additional code to identify the bacterial agent (HHS 2014, Section II.A., 98).
3. a When the documentation is not clear regarding a potential complication, it is appropriate to query the physician (HHS 2014, Section I.B.16, 16; Leon-Chisen 2013, 43–44).
4. b The symptoms provided are indicative of a depressive disorder (Leon-Chisen 2013, 175).



5. c The patient has abdominal adhesions with obstruction, and lysis of adhesions was performed. The abdominal pain is not coded as it is a symptom (HHS 2014, Section I.B.4, 13; Leon-Chisen 2013, 140).
6. c Patient is found to have dysphagia with aspiration is the correct answer because it changes the coding to aspiration pneumonia and would result in MS-DRG 179 RESPIRATORY INFECTIONS & INFLAMMATIONS W/O CC/MCC, which has a weight of 0.9718 (Medicare Grouper Version Used: 31). This is in comparison to MS-DRG 0195, SIMPLE PNEUMONIA & PLEURISY W/O CC/MCC MDC: 04 which has a DRG weight of 0.6978 (Medicare Grouper Version Used: 31).
7. d There may be endometrial implants throughout the pelvic cavity which may attach to various anatomic structures such as the fallopian tube, ovary, and omentum. These locations should be identified so that the appropriate diagnostic codes can be assigned and the appropriate procedure codes can be assigned based on the destruction of the endometrial implants. Therefore, the correct answer is to review the operative report to determine what procedure codes to use and determine the site or sites of endometriosis so that codes with the highest specificity may be assigned. Also, use the diagnosis of infertility as a secondary condition (Schraffenberger 2013, 296; Leon-Chisen 2013, 33, 271).
8. d The care rendered to the patient and the patient's response must be documented in the medical record (LaTour and Eichenwald Maki 2013, 264; Sayles 2013, 70).
9. b Authentication is the act of verifying a claim of identity (Sayles 2013, 381). In order to prove authorship of documents they are required to be authenticated by a signature (LaTour and Eichenwald Maki 2013, 264).
10. c The medical staff bylaws are required by accreditation and regulatory organizations to refer to the timeline required for completion (LaTour and Eichenwald Maki 2013, 240; Sayles 2014, 353).
11. b The abdominal pain and diarrhea are not coded as they are symptoms integral to the diagnosis of infectious gastroenteritis. Review Coding Guideline II.A, 98 for additional information on coding of symptoms, signs, and ill-defined conditions.
12. c The circumstances of the encounter are for a screening colonoscopy. Because of this the screening, colonoscopy is listed first, followed by a code for the polyps (HHS 2014, Section J.C.21.c.5, 88).
13. a Excludes note 1 is defined as never code here (HHS 2014, I.A.12.a, 10).
14. b Excludes note 1 is defined as never code here (HHS 2014, I.A.12.a, 10).
15. b The patient has posterior subcapsular mature incipient senile cataract right eye, diabetes mellitus (with no designated causal relationship to the cataracts), hypertension, acute renal failure. The hypertension is not related to the renal failure as it is acute and not chronic. Because of this, a combination code for hypertension and chronic renal failure is not coded (HHS 2014, Section I.B.9, 14).
16. d Acute exacerbation of COPD is coded as J44.1. The hypertension is present with the chronic renal disease. Because of this, a combination code for hypertension and chronic renal disease is coded. In addition, the stage of the kidney disease is also coded (HHS 2014, Section I.B.9, 14).



17. a The patient was admitted and treated for the respiratory failure. The other conditions present are also coded (Leon-Chisen 2013, 233–234; HHS 2014, Section I.C.10.b.1, 46).
18. d The patient has cirrhosis of the liver with resulting bleeding esophageal varices. Cirrhosis of liver is sequenced first followed by the code for the bleeding esophageal varices (HHS 2014, Section I.A.13, 10).
19. b The physician may word the delivery as “normal” but the coder cannot use O80 unless the patient meets the criteria for using it. The patient has a nuchal cord around the baby’s neck which precludes the use of O80 (HHS 2014, Section I.C.15.n,58).
20. c Codes must reflect the twin gestation as well as preterm labor and delivery. Additionally a code from O30- must be coded with multiple gestations (Leon-Chisen 2013, 323, 327).
21. a The ulcerative colitis and osteoporosis should be coded as well as the adverse effect and long term use of the steroid (HHS 2014, Section I.C.19.e.5.(a), 71).
22. d In order to determine the correct procedure code, the lengths of the wounds repaired with the same closure are added together (AMA 2014, 75, Surgery/Integumentary Section directions). [Note: Since this is an emergency department visit, CPT codes are assigned, rather than ICD-10-PCS codes.]
23. d The patient has a fracture of the right proximal ulna and closed reduction is necessary. In the *ICD-10-CM* codebook, under Fracture, ulna, proximal, the coder is referred to Fracture, ulna, upper end. The term “manipulation” is used to indicate reduction in CPT (AMA 2014, 98). [Note: Since this is an ambulatory surgery center case, CPT codes are assigned, rather than ICD-10-PCS codes.]
24. b A code for the anterior ethmoidectomy is assigned and to denote the bilateral procedure, a modifier of –50 is added (*CPT Assistant* Winter 1993, 23; Jan. 1997, 4; Sept. 1997, 10; Oct. 1997, 5; Dec. 2001, 6; May 2003, 5). The sinusotomy is not coded separately, as it is a diagnostic procedure.
25. c In contrast to question 28, the code description for the transbronchial biopsy includes the specification that the biopsy is in a single lobe. An additional CPT code is needed (as opposed to a modifier) to denote the bilateral aspect of the biopsy. CPT code 31632 is an “add-on” code, which means it is coded in addition to the primary procedure code (AMA 2014, 171–172; *CPT Assistant* 2005; May 2008, 15; Feb. 2010, 6; April 2010, 5).
26. b There is a combination code for a left and right cardiac catheterization (4A023N8). Both the diagnostic cardiac catheterization and the cardiac angiography procedures are assigned (Leon-Chisen 2013, 413–414).
27. a The procedure code assigned is associated with the diagnosis of missed abortion. The diagnosis of missed abortion denotes that the patient has retained products of conception that in other circumstances may have resulted in a miscarriage (Leon-Chisen 2013, 352).
28. b Modifier –50 would not be used as this modifier pertains to paired organs only (*CPT Assistant* Feb. 2000, 4; Nov. 2008, 11; Oct. 2009, 12).



29. c Both the extraction of the cataract and the insertion of the lens are included in the single CPT code. The -RT modifier should be used to indicate the right eye was involved (*CPT Assistant* Nov. 2003, 10; March 2005, 11; Sept. 2009, 5).
30. a Three codes are needed to capture the initial hour and the two additional hours. Modifier -51 would not be used in this case because modifiers are not used with add-on codes (96415) (*CPT Assistant* Nov. 2005, 1; Jan. 2007, 3; May 2007, 3; Sept. 2007, 3; Dec. 2007, 15; Feb. 2009, 17).
31. b The code for a complete chest x-ray includes a minimum of four views and does not include computer-aided detection or fluoroscopy (*CPT Assistant* July 2007, 6; Dec. 2009, 14).
32. b The code that best fits the ligation is the fulguration because there are no clips or excision or lesion completed during the procedure (*CPT Assistant* Nov. 1999, 29; March 2000, 10).
33. c The gallbladder is a specified body part in ICD-10-PCS, therefore, the correct root operation is Resection. Since it is specified as a laparoscopic cholecystectomy, the approach is percutaneous endoscopic (Leon-Chisen 2013, 250, 251).
34. c The patient's hospitalization includes a definitive diagnosis of myocardial infarction of the inferior wall as well as the other diagnosis of atrial fibrillation. The chest pain is not coded as it is a symptom of the MI. The patient also underwent a CABG x 2 and the harvesting of the saphenous vein for the graft is coded (Leon-Chisen 2013, 387-388).
35. d The ventilator management is the procedure that will impact the MS-DRG to provide appropriate reimbursement. The MS-DRG with the highest weight is 870 (Medicare Grouper Version 31). Respiratory Ventilation, Greater than 96 Consecutive Hours (5A1955Z). Medicare DRG assigned: 0870, SEPTICEMIA OR SEVERE SEPSIS W MV 96+ HOURS DRG weight = 05.9187.  
*Incorrect answer option explanations provided for clarity:*
- a. Bronchoscopy with biopsy (0BB74ZX) reference: Medicare DRG assigned: 872 SEPTICEMIA OR SEVERE SEPSIS W/O MV 96 + HOURS W/O MCC MDC: 18 DRG weight = 1.0687 (*incorrect*)
- b. Debridement of toenail (0HBRXZZ) reference: Medicare DRG assigned: 872 SEPTICEMIA OR SEVERE SEPSIS W/O MV 96 + HOURS W/O MCC MDC: 18 DRG weight = 1.0687 (*incorrect*)
- c. Nonexcisional debridement of skin ulcer with abrasion (0HD9XZZ) reference: Medicare DRG assigned: 872 SEPTICEMIA OR SEVERE SEPSIS W/O MV 96 + HOURS W/O MCC MDC: 18 DRG weight = 1.0687 (*incorrect*)
36. a The residual effects that the patient has been discharged with are coded in addition to the cerebral infarction. The infarction is on the left side of the brain which affects the right side of the body in this right-handed patient (HHS 2014, Section I.C.6.a., 35; Leon-Chisen 2013, 209).
37. c The diagnosis after study (lung cancer) was present on admission as well as the symptom (hemoptysis). Code P26.9 would not be assigned because it is not diagnosed and only applies to the perinatal period (HHS 2014, Appendix I, 107).
38. b Policies and procedures of the medical staff are not relevant. But the other areas of diagnoses, additional conditions, and procedures are all important to determine the MS-DRG (Leon-Chisen 2013, 566; Sayles 2013, 266-268).



39. b While Medicare may specify that a given condition is not acceptable, if that condition is what is documented, the coder has no other option but to code what is documented even though the insurer may not pay the claim (Leon-Chisen 2013, 39–40).
40. c It is important to understand the time frame for assigning a status code specifying that a condition is present on admission (Leon-Chisen 2013, 572–574).
41. a The physician must establish the diagnosis—obesity or morbid obesity—and the additional information can be pulled from ancillary documentation to establish the correct code assignment for body mass index (BMI) (Leon-Chisen 2013, 168).
42. c The surgery is done on two distinct body systems with two distinct approaches. This warrants the use of –59 (*CPT Assistant* Sept. 2001).
43. d Because the lungs are paired organs, it may seem as though modifier –50 would be appropriate. However, a modifier would not be assigned because the bronchus is not a paired organ, and the bronchus is the location of the procedure, not the lungs. Similarly, it might seem as though modifier –LT would be assigned, but again, this would not be assigned as the bronchus is not a paired organ. In order to assign the correct modifier, it is important to note that paired organs include ears, eyes, nostrils, kidneys, lungs, ovaries, and such (*CPT Assistant* May 2003).
44. c The melanoma is coded to the site of the lesion and the procedure code is determined based on the size of the lesion as well as the margins excised (Leon-Chisen 2013, chapter 29; *CPT Assistant* Fall 1995, 3; May 1996, 11; Nov. 2002, 5; Feb. 2010, 3).
45. b The bleeding is included in the code for diverticulosis and therefore a second code is not warranted (*CPT Assistant* 4<sup>th</sup> Quarter 1990, 20–24).
46. c The patient has a recurrent hernia without obstruction and this is captured in diagnosis code K40.91 (Leon-Chisen 2013, 253; *CPT Assistant* Nov. 1999, 24; March 2000, 9).
47. d The code for the injury to the brain also includes the time of unconsciousness. The external cause code is provided here as part of the review; however, no external cause codes are used on the exam except those for poisonings and adverse effects of drugs (Leon-Chisen 2013, 485–486). (Based on inpatient exam instructions, do not assign External Causes of Morbidity V01–Y99 codes. Also, see the Procedures for Coding Medical Record Cases for the CCS Examination in the Introduction of this book.)
48. c The principal diagnosis requires that the condition after study, which occasioned the patient's admission to the hospital, be assigned as the principal diagnosis. In the outpatient setting, no after study element is involved as continued evaluation cannot occur (Leon-Chisen 2013, 38; HHS 2014, Section IV, 102).
49. b This final rule established APCs by dividing outpatient services into fixed-payment groups (Smith 2015, 256–257).
50. d The code editor software reviews many data elements and compares them to what data specifications are required in order to weed out incomplete or incorrect claims (Smith 2015, 256–257).



51. d Per *CPT Assistant*, "Codes 52234–52240 should only be reported once, regardless of the number of tumors removed. Only one of the three codes may be reported per session. Select the code based on the largest tumor. Note that 52234 is used when one or more of the tumors is from 0.5 cm to 2.0 cm. Code 52240 is used when one or more of the tumors are larger than 5.0 cm" (AMA August 2009, 6).
52. d Both are types of prospective payment systems (Casto and Forrestal 2013, 4).
53. c  $(10 \times 2.0) + (10 \times 1.5) + (10 \times 1.0) / 30 = 1.5$   
The case mix can be determined by multiplying the relative weight of each MS-DRG by the number of discharges within that MS-DRG. The sum of all the weights is the case mix. Dividing the case mix by the total number of MS-DRGs is the case-mix index (LaTour and Eichenwald Maki 2013, 496; Casto and Forrestal 2013, 127; Sayles 2013, 269).
54. a The MS-DRG weight is higher than the other MS-DRG weights and therefore the associated MS-DRG pays the most (Sayles 2013, 268).
55. b Data quality may have slightly different meanings because there are several disciplines that work with data in healthcare. Generally, ensuring the accuracy and completeness of an organization's data is a definition that can be agreed upon by the organization (LaTour and Eichenwald Maki 2013, 908).
56. d A good process to ensure the data is accurate is to make certain each record or entry within the database is correct (LaTour and Eichenwald Maki 2013, 176).
57. d Data can only be identified as high-quality when they conform to a recognized standard (LaTour and Eichenwald Maki 2013, 173).
58. a The cancer registry can be used to undertake studies in addition to reporting cases to a central registry (LaTour and Eichenwald Maki 2013, 371).
59. a Several data sources can assist the process of improving data quality in this scenario (LaTour and Eichenwald Maki 2013, chapter 14).
60. c Data models provide a conceptual framework and graphical representation that help in defining data elements. Data dictionaries are documents that explain in detail all data elements and their corresponding attributes (Sayles 2013, 881–882).
61. a There are several definitions of mapping and crosswalks but an important one in healthcare is that they are used to describe paths between classifications and vocabularies (LaTour and Eichenwald Maki 2013, 185).
62. d Structured query language (SQL) is used commonly for data language and data definitions (Sayles 2013, 876).
63. a Only records that are required for care or authorized by the patient can be released by the urgent-care facility to the acute-care facility (Brodnik 2012, 225; Sayles 2013, 799, 807).



64. d Disclosing information without the patient's written consent violates the patient's right to privacy (Brodnik 2012, 231, 414; Sayles 2013, 102).
65. d Health information should not be left in public view (Brodnik 2012, 293).
66. d If a procedure is performed, the operative report provides a detailed discussion of what was done (Sayles 2013, 88).
67. b In order to code the procedure accurately, specific information must be documented and used to assign the code (Leon-Chisen 2013, 413–415).
68. c Code the CHF as well as hypertension with end stage kidney disease. In this exercise, both hypertension and chronic kidney disease are documented and for this reason code a combination code. The combination code for hypertensive heart disease is not used in this case as a causal relationship between the hypertension and the CHF was not documented (HHS 2014, Section I.C.9.a.2, 41; HHS 2014, Section I.C.14.a.1, 51).
69. d Code the hypertension with stage 3 chronic kidney disease. In this case, both hypertension and chronic kidney disease are documented and a combination code is used. Also the code for the stage III chronic kidney disease must be assigned due to the "code also" note. The acute renal failure is identified with a separate code (HHS 2014, Section I.C.9.a.2, 41; HHS 2014, Section I.C.14.a.1, 51).
70. b There is a cause and effect relationship established between the hypertension and the congestive heart failure. A separate code for the congestive heart failure is assigned based on the "code also" note (HHS 2014, Section I.C.9.a.1, 41).
71. a The surgical package refers to a combination of individual services provided during one surgical operation (Smith 2015, 54).
72. a When a procedure is designated as a separate procedure in the CPT codebook and it is performed in conjunction with another service, it is considered an integral part of the major service. The CPT code description includes "separate procedure." The intention is not to provide payment for a procedure that is already integral to a any given procedure (AMA 2014, 62; Smith 2015, 56).
73. c When an question is asked about an outpatient acuity map, the coder must review the map and determine the relevant elements that make up the means by which a CPT code and level is assigned. In the case of this map, and in this question, the number of tests ordered is the answer.
74. b The answers to these two questions in addition to the length must be known in order to code repairs correctly (AMA 2014, 75; Smith 2015, 67).



**PRACTICE — PATIENT 1**

PDX	K40.90	Unilateral inguinal hernia, without obstruction or gangrene, not specified as recurrent
DX2	D17.6	Benign lipomatous neoplasm of spermatic cord
PP1	49505-LT	Repair initial inguinal hernia, age 5 years or older; reducible
PR2	55520-59	Excision of lesion of spermatic cord (separate procedure)

**Notes for Practice Outpatient Case—Patient 1**

- K40.90 The type of hernia is coded (Leon-Chisen 2013, 253).
- D17.6 The lipoma is also removed and so should be coded (as per path. and operative reports) (Leon-Chisen 2013, 33–34, 441).
- 49505-LT The hernia location is on the left and the laterality is reported (*CPT Assistant* Sept. 2000, 10).
- 55520-59 The lipoma requires excision and is therefore coded (*CPT Assistant* Sept. 2000, 10; Oct. 2001, 8).

**PRACTICE — PATIENT 2**

PDX	G89.4	Chronic pain syndrome
DX2	M54.16	Radiculopathy, lumbar region
PP1	62311	Injections(s), of diagnostic or therapeutic substance(s) (including anesthetic, antispasmodic, opioid, steroid, other solution), not including neurolytic substances, including needle or catheter placement, includes contrast for localization when performed, epidural or subarachnoid; lumbar or sacral (caudal)

**Notes for Practice Outpatient Case—Patient 2**

- G89.4 The patient has a diagnosis of chronic pain syndrome and a code from the G89 category should be assigned. Per the *Official ICD-10-CM Guidelines for Coding and Reporting* I.C.6.b.1: “Codes in category G89, Pain, not elsewhere classified, may be used in conjunction with codes from other categories and chapters to provide more detail about acute or chronic pain and neoplasm-related pain” (HHS 2014, Section I.C.6.b.1-6, 36–37).
- M54.16 This code denotes the specific cause of the pain (HHS 2014, Section I.C.6.b.1-6, 36–37).
- 62311 *CPT Assistant* states “62311 should only be coded once.” This code is used for epidural injections (AMA Nov. 2008).



**PRACTICE — PATIENT 3**

PDX	G89.3	Neoplasm related pain (acute) (chronic)
DX2	C50.812	Malignant neoplasm of overlapping sites of left female breast
DX3	C79.51	Secondary malignant neoplasm of bone
PP1	62362	Implantation or replacement of device for intrathecal or epidural drug infusion; programmable pump, including preparation of pump, with or without programming

**Notes for Practice Outpatient Case—Patient 3**

- G89.3 The patient is admitted for pain management due to metastatic cancer. If the admission is for pain control related to, associated with, or due to, a malignancy, code G89.3 (HHS 2014, Section I.C.6.b.i, 36–37; HHS 2014, Section I.C.6.b.5, 38–39).
- C50.812, C79.51 The primary site and metastatic (secondary) sites should be coded (Leon-Chisen 2013, 448; HHS 2014, Section I.C.2, 25).
- 62362 The reservoir is surgically placed and attached to a previously placed catheter (CPT Assistant March 1997, 11).

**PRACTICE — PATIENT 4**

PDX	G90.522	Complex regional pain syndrome I of left lower limb
PP1	64520–LT	Injection, anesthetic agent; lumbar or thoracic (paravertebral sympathetic)
PR2	77003	Fluoroscopic guidance and localization of needle or catheter tip for spine or paraspinal diagnostic or therapeutic injection procedures (epidural or subarachnoid)

**Notes for Practice Outpatient Case—Patient 4**

- G90.522 The diagnostic code is needed to establish the medical necessity for the procedure and a pain management code is not appropriate because the underlying condition is being treated (HHS 2014, Section I.C.6.b.1, 36).
- 64520–LT When coding paravertebral spinal nerves and branches, it is appropriate to use the modifiers to note the laterality (CPT Assistant July 1998, 10; April 2005, 13).
- 77003 Fluoroscopic guidance is not included in the 64520 code so it is therefore appropriate to code a second code (CPT Assistant March 2007, 7; July 2008, 9; Feb. 2010, 12).



## PRACTICE — PATIENT 5

PDX	C54.1	Malignant neoplasm of endometrium
DX2	I97.52	Accidental puncture and laceration of a circulatory system organ or structure during other procedure
DX3	T81.19XA	Other postprocedural shock, initial encounter
DX4	D62	Acute posthemorrhagic anemia
DX5	D50.0	Iron deficiency anemia secondary to blood loss (chronic)
DX6	E89.0	Postprocedural hypothyroidism
DX7	I97.62	Postprocedural hemorrhage and hematoma of a circulatory system organ or structure following other procedure
DX8	K66.1	Hemoperitoneum
DX9	Z80.0	Family history of malignant neoplasm of digestive organs
PP1	0UT9FZZ	Resection of uterus, via natural or artificial opening with percutaneous endoscopic assistance
PR2	0UTC7ZZ	Resection of cervix, via natural or artificial opening
PR3	04Q24ZZ	Repair gastric artery, percutaneous endoscopic approach

## Notes for Practice Inpatient Case—Patient 5

- C54.1 Endometrial carcinoma is documented in the pathology report and the discharge summary (HHS 2014, Section I.C.2.a, 26).
- I97.52 Accidental laceration is documented in the second operative report (Leon-Chisen 2013, 527, 529–530; HHS 2014, Section I.C.16, 16).
- T81.19XA Postoperative shock is denoted in the discharge summary (Leon-Chisen 2013, 539–540; HHS 2014, Section I.C.16, 16). Include this because there is no other code to denote postoperative shock. Only one code is used.
- D62 Acute blood loss anemia is documented in the progress notes and operative report because the patient had blood loss of 1,500 to 2,000 ml. The labs also reflect this diagnosis (Leon-Chisen 2013, 193).
- D50.0 The patient also had chronic blood loss anemia as documented on the H & P (Leon-Chisen 2013, 192).
- E89.0 Postsurgical hypothyroidism is documented on the H & P report and patient received Synthroid while an inpatient (Leon-Chisen 2013, 530).
- I97.62 Intraoperative hemorrhage documented in the operative report (Leon-Chisen 2013, 526–527). I97.62 is a general complication code; the coder does not know where the hemorrhage is taking place. By adding an additional code, a coder can indicate where the hemorrhage is occurring.
- K66.1 Coded to add further specificity (Leon-Chisen 2013, 526–527).
- 0UT9FZZ The patient underwent a laparoscopic-assisted vaginal hysterectomy. (Do not code the laparoscopy because it is the operative approach.) (Leon-Chisen 2013, 273–274).
- 0UTC7ZZ Since Cervix has a specific body part designation in ICD-10-PCS, it is coded separately with the root operation of Resection.
- 04Q24ZZ The patient underwent another laparoscopy for suture of the lacerated epigastric artery. (Do not code the laparoscopy because it is the operative approach.) (Leon-Chisen 2013, 74–75).

*Note:* Chronic cervicitis is not coded because it is an incidental finding (HHS 2014 Section III, 100).



*Note:* Based on the following instructions for the CCS exam (refer to the Procedures for Coding Medical Record Cases for the CCS Examination in the Introduction of this book), the blood transfusion is not coded: Do not code procedures that fall within the code range 87.01–99.99. But, code procedures in the following ranges:

87.51–87.54	Cholangiograms
87.74, 87.76	Retrogrades, urinary systems
88.40–88.58	Arteriography and angiography
92.21–92.29	Radiation therapy
94.24–94.27	Psychiatric therapy
94.61–94.69	Alcohol/drug detoxification and rehabilitation
96.04	Insertion of endotracheal tube
96.56	Other lavage of bronchus and trachea
96.70–96.72	Mechanical ventilation
98.51–98.59	ESWL
99.25	Chemotherapy



## PRACTICE — PATIENT 6

PDX	Z51.11	Encounter for antineoplastic chemotherapy and immunotherapy
DX2	C78.6	Secondary malignant neoplasm of retroperitoneum and peritoneum
DX3	R18.0	Malignant ascites
DX4	Z85.038	Personal history of other malignant neoplasm of large intestine
DX5	Z93.3	Colostomy status
DX6	Z80.0	Family history of malignant neoplasm of digestive organs
DX7	Z92.3	Personal history of irradiation
DX8	Z87.891	Personal history of nicotine dependence
DX9	Z90.49	Acquired absence of other specified parts of digestive tract
PP1	3E03305	Introduction of other antineoplastic into peripheral vein, percutaneous approach

## Notes on Practice Inpatient Case—Patient 6

- Z51.11 The patient is admitted for chemotherapy, as documented in the discharge summary and reflected in the physician orders (HHS 2014, Section I.C.2.a., 26; HHS 2014, Section I.C.2.e.2., 28).
- C78.6 Carcinomatosis with malignant ascites from retro-peritoneum and peritoneum is documented on the discharge summary and H & P (HHS 2014, Section I.C.2.a., 26).
- R18.0 This code provides more specificity (HHS 2014, Section III, 100–101).
- Z85.038 The organ of origin (colon) has been removed and was treated; therefore, code the history of malignant neoplasm of the colon. Whenever there is a secondary neoplasm code, primary site must be designated either with a code for the primary site or a history code (HHS 2014, Section I.C.2.d., 27).
- Z93.3 Status colostomy is reflected on the H & P (HHS 2014, Section I.C.21.c.3., 83–86).
- Z80.0 Relevant to the patient's treatment and documented in the medical record (HHS 2014, Section I.C.21.c.4., 87–88).
- Z92.3 This code indicates that the patient has a history of radiation therapy (HHS 2014, Section I.C.21.c.4., 87–88).
- Z87.89 This code indicates that the patient has a history of tobacco use and this is relevant because the patient has cancer (Section I.C.21.c.4., 87–88).
- Z90.49 The documentation indicates that a colectomy was done to treat the patient's primary colon cancer. (HHS 2014, Section I.C.21.c.3, 83–86).
- 3E03305 Per the Procedures for Coding Medical Record Cases for the CCS Examination, this code for chemotherapy would be assigned. (For exam coding instructions, refer to the Introduction of this book.)
- Note:* Breast cyst is not coded because it does not meet UHDDS criteria.



## Points of Interest on Practice Patient 6

1. This case illustrates several basic principles of coding neoplasms. First, the patient had the organ in which the carcinoma originated removed (colon). Second, because a secondary site is being coded, the coder must code the primary site in some manner. Therefore, use a history of malignancy code to represent the primary site.
2. This case also illustrates that when the ascites is determined to have malignant cells in the fluid, the code for malignant ascites should be used.

## PRACTICE — PATIENT 7

PDX	A41.51	Sepsis due to <i>Escherichia coli</i> [ <i>E. coli</i> ]
DX2	N10	Acute tubulo-interstitial nephritis
DX3	B00.1	Herpesviral vesicular dermatitis
DX4	Z16.11	Resistance to penicillins
DX5	F17.200	Nicotine dependence, unspecified, uncomplicated

## Notes on Inpatient Practice Case—Patient 7

- A41.51 *E. coli* septicemia is documented on the culture and sensitivity as well as in the H & P (HHS 2014, Section I.C.1.d.1.a., 20).
- N10 Acute pyelonephritis is also coded because this is where the septicemia began. Do not code the organism. It is already reflected in the septicemia code (HHS 2014, Section III., 100–101).
- B00.1 Herpes simplex is documented on the 9/8 progress notes and is treated (HHS 2014, Section III., 100–101).
- Z16.11 The organism is specified to be resistant to in the discharge summary and therefore designate that in the coding (HHS 2014, Section I.C.1.c., 19–20).
- F17.200 Tobacco abuse is treated and documented in the progress notes, H & P and D/C summary. This code does not require a fifth digit (HHS 2014, Section III., 100–101).
- Note:* The pyelogram performed on 9/8 is not coded because it is an unspecified pyelogram (refer to the Procedures for Coding Medical Record Cases for the CCS Examination in the Introduction of this book).

## Points of Interest on Patient 7

1. This case illustrates how an infection can begin in one organ system and then become systemic. This is why the same organism is in the urinary tract and the blood. As stated earlier, code both disorders (septicemia and pyelonephritis).
2. The organism causing the infection is resistant to penicillin and ampicillin. Only code resistance to a drug if the resistance is documented by the practitioner in the record. Do not code from the laboratory reports alone.



**PRACTICE — PATIENT 8**

PDX	H65.23	Chronic serous otitis media, bilateral
DX2	J32.9	Sinusitis (chronic)
DX3	J35.2	Hypertrophy of adenoids
DX4	H68.103	Unspecified obstruction of Eustachian Tube, bilateral
PP1	69436-50	Tympanostomy (requiring insertion of ventilating tube), general anesthesia (bilateral)
PR2	42831	Adenoidectomy, primary; age 12 or older (Patient is 35 years old.)

**Notes on Outpatient 8**

- H65.23 The patient has chronic serous otitis media in both ears with the fifth character identifying bilateral (HHS 2014, Section IV.A.1., 103).
- J32.9 The patient also has chronic sinusitis and adenoid hypertrophy (HHS 2014, Section IV.G., 104).
- J35.2 The patient has hypertrophy of the adenoids.
- H68.103 The patient also has obstruction of Eustachian tubes and this is the reason for the tympanostomy and insertion of tubes.
- 69436-50 The patient had a bilateral tympanostomy. Modifier -50 is used to identify the bilateral procedure (rather than listing the procedure code twice) (AMA *CPT Professional Edition* 2014, Modifier Section, inside front cover).
- 42831 The patient also had adenoidectomy. This code is affected by age (AMA *CPT Professional Edition* 2014, 252).

**PRACTICE — PATIENT 9**

PDX	S01.312A	Laceration without foreign body of left ear, initial encounter
PP1	12011	Simple repair of superficial wounds of face, ears, eyelids, nose, lips and/or mucous membranes; 2.5 cm or less (2 cm laceration specified in the physical examination)
PR2	99283-25	E/M code based on mapping scenario provided (40 total points*)

**Notes on Outpatient 9**

- S01.312A The laceration is of the left ear lobe (HHS 2014, Section IV.G., 104).
- 12011 A simple repair of the ear was done of less than 2.5 cm (*CPT Assistant* Feb. 2000, 10; May 2000, 8; Jan. 2002, 10; Feb. 2008, 8). The repair is of the skin and therefore no modifier for the left side is assigned.
- 99283-25 The coder will need to calculate the E/M code for the outpatient visit. \*According to the mapping scenario; meds given are = 1 = 5 points, the history is problem focused = 10 points, the exam is problem focused = 10 points, the number of tests = 0 = 5 points, supplies = 2 suture kits = 10 points. This equals 40 points.
- In Section IV of the Official Coding Guidelines, guidance is given related to how to sequence the diagnostic codes. Generally, if there is surgery, the reason for the surgery is sequenced first as it is the reason for the encounter. The related procedure or E/M code is sequenced to match the diagnosis. In this case, the patient came to the ED to repair her ear laceration. This is the reason that the sutures were sequenced first.



**PRACTICE — PATIENT 10**

<b>PDX</b>	C78.7	Secondary malignant neoplasm of liver and intrahepatic bile duct
<b>DX2</b>	C34.31	Malignant neoplasm of lower lobe, right bronchus or lung
<b>PP1</b>	10022	Fine needle aspiration; with imaging guidance
<b>PR2</b>	76942	Ultrasonic guidance for needle placement (eg, biopsy, aspiration, injection, localization device), imaging supervision and interpretation

**Notes on Outpatient 10**

- C78.7 The patient is being seen because of the metastatic cancer of the liver (HHS 2014, Section I.C.2.b., 26).
- C34.31 The patient's primary site is the right lower lobe of the lung (HHS 2014, Section I.C.2.1.2., 29).
- 10022 The patient undergoes a fine needle aspiration with imaging guidance (CPT Assistant, Nov. 2002, 1; June 2007, 10).
- 76942 The ultrasound guidance is also coded (CPT Assistant Fall 1993, 12; Fall 1994, 2; May 1996, 3; June 1997, 5; Oct. 2001, 2; May 2004, 7; Dec. 2004, 12; April 2005, 15–16; Aug. 2008, 7; March 2009, 8).



**PRACTICE — PATIENT 11**

<b>PDX</b>	S72.001A	Fracture of unspecified part of neck of right femur, initial encounter for closed fracture
<b>DX2</b>	N99.89	Other postprocedural complications and disorders of genitourinary system
<b>DX3</b>	R33.9	Retention of urine, unspecified
<b>DX4</b>	I50.9	Heart failure, unspecified
<b>DX5</b>	K57.90	Diverticulosis of intestine, part unspecified, without perforation or abscess without bleeding
<b>DX6</b>	I34.0	Nonrheumatic mitral (valve) insufficiency
<b>DX7</b>	I25.10	Atherosclerotic heart disease of native coronary artery without angina pectoris
<b>DX8</b>	Z87.11	History of peptic ulcer disease
<b>DX9</b>	M19.90	Unspecified osteoarthritis, unspecified site
<b>DX10</b>	F03.90	Unspecified dementia without behavioral disturbance
<b>PP1</b>	0QS804Z	Reposition right femoral shaft with internal fixation device, open approach
<b>PR2</b>	OT9B70Z	Drainage of bladder with drainage device, via natural or artificial opening

**Notes on Inpatient 11**

S72.351A	The documentation specifies a displaced femoral shaft fracture. (HHS 2014, Section I.C.19.a. and c.1., 66–68).
N99.89	(HHS 2014, Section I.C.19.g.5.,75)
R33.9	Patient had postoperative urinary retention as documented in the 12/1 progress note. An additional code is added to identify the specific complication of urinary retention (HHS 2014, Section I.C.19.g.5.,75).
I50.9	The secondary diagnoses should be assigned as existing at the time of admission (HHS 2014, Section III, 100).
K57.90	The patient has diverticulosis (Leon-Chisen 2013, 247)
I34.0	The patient has mitral valve regurgitation (Leon-Chisen 2013, 384).
I25.10	The patient has arteriosclerotic heart disease (Leon-Chisen 2013, 392).
Z87.11	The patient has a history of peptic ulcer (Leon-Chisen 2013, 126-127, 133-134).
M19.90	The patient has osteoarthritis (Leon-Chisen 2013, 297).
F03.90	The patient has senile dementia (Leon-Chisen 2013, 173).
0QS804Z	The patient underwent open reduction with internal fixation (Leon-Chisen 2013, 489–90). Open reduction with internal fixation of right femoral shaft
OT9B70Z	Drainage of Bladder with Drainage Device, Via Natural or Artificial Opening

**Points of Interest on Inpatient 11**

1. This case provides an example of postoperative urinary retention, which is a commonly missed complication.
2. You must review the radiology report to determine where the fracture is. This is frequently the case with coding actual records.



**PRACTICE — PATIENT 12**

PDX	S83.281A	Other tear of lateral meniscus, current injury, right knee, initial encounter
DX2	S83.511A	Sprain of anterior cruciate ligament of right knee, initial encounter
PP1	29881-RT	Arthroscopy, knee, surgical; with meniscectomy (medical OR lateral, including meniscal shaving)
PR2	29888-RT	Arthroscopically aided anterior cruciate ligament repair/augmentation or reconstruction

**Notes on Outpatient 12**

- S83.281A The condition requiring repair (HHS 2014, Section IV.A.1., 103).
- S83.511A An additional condition requiring surgery (HHS 2014, Section III, 100).
- 29881-RT Code is used for the repair of the meniscectomy (*CPT Assistant* Feb. 1996, 9; June 1999, 11; Aug. 2001, 7; Oct. 2003, 11; April 2005, 14; Dec. 2007, 10; *CPT Changes: An Insider's View* 2013).
- 29888-RT Represents the arthroscopic repair of the ligament (*CPT Assistant* Oct. 2003, 11; Dec. 2007, 10).

**PRACTICE — PATIENT 13**

PDX	R10.11	Right upper quadrant pain
DX2	R11.2	Nausea with vomiting, unspecified
DX3	E86.0	Dehydration
DX4	K21.9	Gastro-esophageal reflux disease without esophagitis
DX5	F41.9	Anxiety disorder, unspecified
PP1	99285-25	Evaluation and management mapping for case hospital visit level 5

**Notes on Outpatient 13**

- R10.11 This is the most severe symptom and the reason for the encounter (HHS 2014, Section IV, 102-105).
- R11.2 This is a secondary condition that was evaluated and treated (HHS 2014, Section IV.J., 104).
- E86.0 This is a secondary condition that was evaluated and treated (HHS 2014, Section IV.J., 104).
- K21.9 This is a secondary condition that was evaluated and treated (HHS 2014, Section IV.J., 104).
- F41.9 This is coded but does not fit within the requirements of four diagnoses required by the exam procedures.
- 99285-25 This is code is used to represent the evaluation and management code for the facility APV and is done according to the mapping scenario as follows; meds ordered are = 3 = 10 points, the history is comprehensive = 25 points, the exam is extended problem focused = 15 points, the number of tests = 6 = 20 points, supplies = 1 IV = 5 points. 75 total points.



## PRACTICE — PATIENT 14

PDX	I50.9	Heart failure, unspecified
DX2	I07.1	Rheumatic tricuspid insufficiency
DX3	E10.9	Type 1 diabetes mellitus without complications
DX4	B35.1	Dermatophytosis of nail
DX5	Q84.5	Enlarged and hypertrophic nails
DX6	I10	Essential (primary) hypertension
DX7	F17.200	Nicotine dependence, unspecified, uncomplicated
PP1	0HDXZZ	Extraction of toe nail, external approach
PR2	0HDXZZ	Extraction of toe nail, external approach

## Notes on Inpatient 14

- I50.9 The patient is admitted with CHF as documented on the H & P and discharge summary. Even though the patient also has tricuspid valve insufficiency, use the I50.9 because, there is no documentation the CHF is rheumatic (HHS 2014, Section II., 97; Leon-Chisen 2013, 385, 394–395).
- I07.1 Tricuspid insufficiency is documented on the discharge summary and H & P (HHS 2014, Section III., 100).
- E10.9 Diabetes mellitus type 1 is documented on the discharge summary and H & P (HHS 2014, Section III., 100).
- B35.1 Mycotic nails (Q84.5), Hypertrophic nails (I10), Hypertension (F17.200), and tobacco abuse are all documented in the medical record and meet the UHDDS definition (HHS, 2014, Section III, 100; HHS 2014, Tabular Index).
- 0HDXZZ Debridement of nails performed as per the progress notes and the consult sheet. As per the Procedures for Coding Medical Record Cases for the CCS Examination (in the Introduction of this book), “Code all procedures that fall within the code range 001 through 10Y.” (This is coded twice because it is a bilateral debridement.)

## Points of Interest on Inpatient 14

1. This case provides an example of the coding rules for coding congestive heart failure with a heart valve disorder.
2. The documentation is interesting because the only place the procedure is documented is in the consultation. This is a practice in some healthcare facilities and illustrates the need to review every document in the record in order to code accurately.



**PRACTICE — PATIENT 15**

<b>PDX</b>	O03.1	Delayed or excessive hemorrhage following incomplete spontaneous abortion
<b>DX2</b>	O99.331	Smoking (tobacco) complicating pregnancy, first trimester
<b>DX3</b>	O99.341	Other mental disorders complicating pregnancy, first trimester
<b>DX4</b>	F32.9	Major depressive disorder, single episode, unspecified
<b>DX5</b>	F10.10	Alcohol abuse, uncomplicated
<b>DX6</b>	Z3A.14	14 weeks of gestation of pregnancy
<b>PP1</b>	10D17ZZ	Extraction of products of conception, retained, via natural or artificial opening

**Notes on Inpatient 15**

- O03.1 This is a case of an incomplete spontaneous abortion. This is evidenced by the pathology report. The patient has documented heavy bleeding that has resulted in anemia. (HHS 2014, Section I.C.15.q.2., 60).
- O99.331 Tobacco abuse is also documented and treated. The pregnancy code is specific to tobacco abuse and because of this, only use one code (HHS 2014, Section I.C.15.l.2., 58).
- O99.341 These conditions are coded to add further specificity. Alcohol abuse is treated and relevant to the case. The physician documented the patient had "alcohol abuse," therefore, alcohol abuse, the diagnosis that is documented, is the one that is coded (HHS Section I.C.15.l.1., 57).
- F32.9, F10.10
- Z3A.14 A code from category Z3A is added as an additional code (HHS 2014, Section I.C.21.c.11., 92–93).
- 10D17ZZ The patient underwent a D & C following spontaneous abortion (Leon-Chisen 2013, 94).

**Points of Interest on Inpatient 15**

1. This case illustrates the difference between coding an incomplete spontaneous abortion and a complication of abortion. In the documentation, the patient had a D & C to complete the spontaneous abortion. However, if there are products of conception or other material from the pregnancy retained in the uterus at the time of readmission, this indicates the abortion was **not** completed.
2. Spontaneous abortion and miscarriage are used interchangeably in *ICD-9-CM Official Guidelines for Coding and Reporting*.



## Practice Exam 1

1. c "Status asthmaticus is an acute asthmatic attack in which the degree of bronchial obstruction is not relieved by the usual treatment, such as by epinephrine or aminophylline" (Schraffenberger 2013, 234).
2. c The term urosepsis is a nonspecific term. It has no default code in the Alphabetic Index. Should providers use this term, they must be queried for clarification (HHS 2014, Section I, C, 1, d, 1, a, ii 20).
3. b It is rare for only one coronary artery to be bypassed, and it is also fairly common to perform both an internal mammary-coronary artery bypass and an aortocoronary bypass at the same operative episode (Schraffenberger 2013, 215–217).
4. c A colonoscopy is an examination of the entire colon, from the rectum to the cecum that may include the terminal ileum. In general, a colonoscopy examines the colon to a level of 60 cm or higher (Smith 2015, 118).
5. c Targeted cancer therapies are drugs or other substances that block the growth and spread of cancer by interfering with specific molecules involved in tumor growth and progression. Herceptin is a type of targeted cancer therapy also referred to as a monoclonal antibody (National Cancer Registry 2012).
6. a Query the attending physician regarding the clinical significance of the findings and request that appropriate documentation be provided. This is an example of a circumstance where the chronic condition must be verified. All secondary conditions must meet the UHDDS definitions; it is not clear if COPD does (HHS 2014, Section III, B 101).
7. d Coding strictly from the pathology report is not appropriate as the coder is assigning a diagnosis without the attending physician's corroboration. It is therefore appropriate to query the physician (HHS 2014, Section III, B 101).
8. c Excisional debridement can be performed in the operating room, the emergency department, or at the bedside. Coders are encouraged to work with the physician and other healthcare providers to ensure that the documentation in the health record is very specific regarding the type of debridement performed. If there is any question as to whether the debridement is excisional or nonexcisional, the provider should be queried for clarification (Schraffenberger 2013, 267–268).
9. b When a patient is readmitted because a complication has developed following discharge for a treated miscarriage, a code from category O08 is assigned as the principal diagnosis. Code O08.9 is used because the miscarriage (spontaneous abortion) was dealt with in a prior episode of care (Leon-Chisen 2013, 347).
10. d The Medicare Conditions of Participation and the Joint Commission require that the medical record is completed no later than 30 days following discharge of the patient (LaTour and Eichenwald Maki 2013, 266).



11. a If an error is corrected, the healthcare provider who made the error should draw a single line through the error, add a note explaining the error, initial and date it, and add the correct information in chronological order (LaTour and Eichenwald Maki 2013, 264; Sayles 2013, 535). Further, AHIMA principles for health record documentation specify the prior statement as the proper method for correcting an error in the paper-based records in order to maintain a legally sound record. This process is based on the ASTM and HL7 standards for error correction (AHIMA e-HIM Work Group on Maintaining the Legal EHR, 2005).
12. b In order to determine if a medical record is complete, it must be reviewed for certain basic reports including the presence of a history and physical, signed progress notes, and a discharge summary if applicable (LaTour and Eichenwald Maki 2013, 264). The incident report should never be filed in the medical record (Sayles 2013, 613); voided prescription pads are not used during a patient hospitalization; personal case notes from mental health providers are kept separate from the official record. While there are a number of documents required for the hospital medical record to be complete, the ones described in option b present the best answer (Brodnik 2012, 185).
13. b When a patient has pulmonary edema that is due to congestive heart failure, only the congestive heart failure should be coded (Leon-Chisen 2013, 394).
14. d Code I25.10 is assigned to show coronary artery disease in a native coronary artery and is used when a patient has coronary artery disease and no history of coronary bypass graft (CABG) surgery (Schraffenberger 2013, 202–203). Code 93458 includes intraprocedural injection(s) for left ventricular/left atrial angiography, imaging supervision, and interpretation when performed (AMA *CPT Professional Edition* 2014, Cardiac Catheterization Guidelines, 557).
15. a Common reasons for revision joint replacement surgery include mechanical loosening of the prosthesis, dislocation of the prosthetic joint, fracture of the bone around the implant. In addition to the complication code, an additional code can be assigned to identify the previous joint replacement. Revision of the acetabular component involves removal and exchange of the entire acetabular component, including both the metal shell and the polyethylene, ceramic, or metal modular bearing surface (Leon-Chisen 2013, 301–302).
16. b When an admission involves delivery, the principal diagnosis should identify the main circumstance or complication of the delivery. The code for normal delivery cannot be used because there is a complication of pregnancy because the pregnancy is prolonged (HHS 2014, Section I.C.15.b.4, 54).
17. b Full compliance is expected for claims received for encounters and discharges occurring on or after 10/1/2015 (Leon-Chisen 2013, 6).
18. a Thrombophlebitis occurred in the artery where the catheterization was performed and the cause of the thrombophlebitis is documented as due to the catheterization. Thrombophlebitis resulting from a procedure is listed as T81.72. When the tabular is reviewed, this code relates to a vein. The exercise states that the artery is the location of the thrombophlebitis. Therefore a code from the T81.718 category is used (HHS 2014, Section I, B 16, 16).
19. d Patients with acute ischemic heart disease or acute myocardial ischemia does not always indicate an infarction. It is often possible to prevent infarction by means of surgery or the use of thrombolytic agents if the patient is treated promptly. Using the main term, ischemia, then the subterms of myocardium and acute, the alphabetic index reflects that I24.0 is the correct code for an acute myocardial ischemia without myocardial infarction (Leon-Chisen 2013, 390–391).



20. d Nausea, vomiting, and abdominal pain are symptoms of acute cholecystitis. Signs and symptoms that are associated routinely with a disease process should not be assigned as additional codes, unless otherwise instructed by the classification (HHS 2014, Section I, B, 5, 13).
21. c If the findings are outside the normal range and the attending provider has ordered other tests to evaluate the condition or prescribed treatment, it is appropriate to ask the provider whether the abnormal findings should be added. Abnormal findings from laboratory, x-ray, pathologic, and other diagnostic results are not usually coded and reported unless the physician indicates their clinical significance (HHS 2014, Section III.B.,101).
22. b This is an adverse effect of a drug as the dopamine was prescribed correctly and the patient took it correctly. Hypotension, should be assigned to describe the condition related to the adverse effect. A "T" code should be assigned to indicate that it is an adverse effect of the drug (HHS 2014, Section I, C, 19, e, 5, a, 71–72).
23. b A tear in the dura that occurs during spinal surgery is not unusual and is typically repaired intraoperatively when identified. Primary closure of the dural tear is usually accomplished. Dural tears that are not discovered during surgery can result in leakage of cerebrospinal fluid (CSF), leading to CSF headache, caudal displacement of the brain, subdural hematoma, spinal meningitis, pseudomeningocele and/or a dural cutaneous fistula (HHS 2014, Section I, B, 16, 16).
24. a Respiratory failure may be listed as a secondary diagnosis if it occurs after admission, or if it is present on admission, but does not meet the definition of principal diagnosis (HHS 2014, Section I.C.10.b.2., 46).
25. b A patient with pneumococcal sepsis and pneumococcal pneumonia also has severe sepsis. Careful review of the ICD-10-CM Official Guidelines for Coding and Reporting provides information related to the coding and sequencing of sepsis, severe sepsis, and localized infection, such as pneumonia (HHS 2014, Section I.C.1.d.4., 22).
26. b Patients who have undergone kidney transplant may still have some form of CKD, because the kidney transplant may not fully restore kidney function. Therefore, the presence of CKD alone does not constitute a transplant complication (HHS 2014, Section I, C, 14, a, 2, 51–52).
27. c The condition after study that occasioned the admission should be sequenced first even if the plan of treatment was not carried out due to unforeseen circumstances (HHS 2014, Section II.F, 98).
28. c Reviewing the results of payers' audits is valuable, but payers are an external entity. As far as a facility coding compliance plan, incorporating internal and external auditing into the coding compliance plan has proven to be the best strategy. Internal auditing enables managers to see firsthand where their units' strengths and weaknesses lie. External auditing provides an unbiased view of a department's performance. Together, internal and external audits help coding managers build effective education plans for their units (Casto and Forrestal 2013, 44).
29. d Before any unlisted code is assigned, the coding professional should review HCPCS Level II (national) codes to confirm that CMS has not developed a specific code for the procedure or service in question. CPT Category III codes, which are developed specifically for reporting new technology, should also be reviewed. CPT guidelines support the use of a Category III code instead of a Category I unlisted code (Smith 2015, 24–25).



30. a CT colonography uses CT scanning to obtain an interior view of the colon (the large intestine) that is otherwise only seen with a more invasive procedure where an endoscope is inserted into the rectum (Kuehn 2014, 159). *Note:* Code 0066T has been deleted and the coder is instructed to use 74263. Computed tomographic (CT) colonography, screening, including image post-processing (AMA *CPT Professional Edition* 2014, 403).
31. c 11602: Excision malignant lesion of trunk; excised diameter 1.1 cm to 2.0 cm. The size of the lesion plus the margins are included in coding the excision. Excised diameter: 1.0 cm + 0.2 cm + 0.2 cm = 1.4 cm (Smith 2015, 60–63).
32. c IDET is done with thermal energy (heat) directed into the outer disc wall (annulus) and inner disc contents (nucleus) via a heating coil, decreasing the pressure inside the disc.
33. c For tubal ligation, which may be performed by ligation, transection, or other occlusion of the fallopian tubes, the coder should refer to codes 58600–58615 for abdominal or vaginal approaches. For laparoscopic tubal ligation with the use of Falope rings, code 58671 is assigned (Kuehn 2014, 187).
34. c Codes (52234–52240) should only be reported once, regardless of the number of tumors removed. Only one of the three codes may be reported per session. Select the code based on the largest tumor. Code 52240 is used when one or more of the tumors are larger than 5.0 cm (*CPT Assistant* August 2009, 19(8):6).
35. c A variety of substances can be injected into the submucosal space of the digestive tract through a sheathed needle-tipped catheter inserted through an endoscope (*CPT Assistant* May 2005, 15(5): 3–6).
36. c The endometrial biopsy (58110) is an add-on code and there are specific directions in the CPT book to use this code in conjunction with the code for the colposcopy (*CPT Changes 2006—An Insider's View; CPT Assistant* June 2006, 16–17).
37. c CPT code 52204 is reported only once, irrespective of how many biopsy specimens are obtained and how the specimens are sent for pathologic examination (*CPT Assistant* August 2009, 19(8):6). Modifier 22 is not appropriate because it is not approved for hospital outpatient use (AMA 2014, front cover).
38. d The operative report should be reviewed for the body part involved with the lesion. The total size of the excised area, including margins, is needed for accurate coding. The pathology report typically provides the specimen size rather than the lesion or excised size. Because the specimen tends to shrink, this is not an accurate measurement according to the intent of the code assignment (Smith 2015, 61–62).
39. b The size of the joint is a key determination because arthrocentesis codes are based on whether the joint is small, intermediate, or major (AMA 2014, 101).
40. a The common bile duct exploration is not assigned separately since the calculus was removed. The root operations for these two procedures are “resection” for the total cholecystectomy and “extirpation” for the removal of the common bile duct calculus.
41. d The same reasons presented above apply in this scenario as well, except that the approaches are different (Leon-Chisen 2013, 250).



42. d Intraoperative cholangiogram is a significant procedure and should be coded based on the UHDDS definition (Schraffenberger 2013, 53).
43. a The root operation, Resection, is defined as *cutting out or off, without replacement, all of a body part*. Removal of the lobe of the liver is also considered a resection because each lobe of the liver has a separate body part character in ICD-10-PCS (Leon-Chisen 2013, 93).
44. c The UHDDS specifies ICD-10-PCS as the code system for inpatient procedures
45. c Code T82.110A pertains to mechanical complications and would not be used. In this case, there is pain due to the displacement of the electrode. The breast cyst (N60.09) would not be coded because it does not meet the criteria of the UHDDS as a secondary condition; it is an incidental finding (HHS 2014, Section III, 100-101). Review the Alphabetic Index under Absence, thyroid, with hypothyroidism, which directs the coder to code E89.0.
46. c The localization and aspiration require two codes to identify both radiological guidance and the procedure itself. The procedure is bilateral and a -50 modifier is required (*CPT Assistant March 2007, 7; AMA 2014, 89*). (Schraffenberger 2013, 53).
47. c The acute exacerbation of COPD with blood gas values of  $pO_2$  of 58,  $pCO_2$  of 55, pH of 7.32 reflects possible respiratory failure. The patient was treated with intubation and mechanical ventilation for 23 hours. MS-DRG 0208 is a correct reflection of the patient's severity illness and appropriate reimbursement based on the documentation when compared to the MS-DRG associated with acute exacerbation of COPD.
48. b MS-DRG 291 (weight = 01.5174) for congestive heart failure with stage III pressure ulcer would optimize the MS-DRG. MS-DRG 293 (weight = 00.6751) is assigned for congestive heart failure alone, with atrial fibrillation, with blood loss anemia, and with coronary artery disease all remain the same (Medicare Grouper Version 30-10/12).
49. d MS-DRG 264 (weight = 02.6674) for myocardial infarction with transbronchial lung biopsy would result in the highest reimbursement. MS-DRG 282 (weight = 00.7736) would be assigned for the myocardial infarction alone, and with insertion central venous catheter. MS-DRG 282 (weight = 00.77360) would be assigned for myocardial infarction with mechanical ventilator (Medicare Grouper Version 30-10/12).
50. d The principal diagnosis should be the condition established after study that was responsible for the patient's admission. If the patient was admitted with a condition that resulted in the performance of a cesarean procedure, that condition should be sequenced as the principal diagnosis. If the reason for the admission/encounter was unrelated to the condition resulting in the cesarean delivery, the condition related to the reason for the admission/encounter should be selected as the principal diagnosis, even if a cesarean was performed (HHS 2014, Section I, C, 15, b, 4, 54).
51. d This patient was previously treated for the spontaneous abortion but the presence of the products of conception denotes that the abortion was not completed during the prior episode of care. Because of this and the fact that she now has sepsis, this is coded as sepsis following an incomplete spontaneous abortion. (HHS 2014, Section I.C.15.j., 57; HHS 2014, Section I.C.15.q.2., 60).



52. a MS-DRG 280 (weight = 01.7999) for myocardial infarction with respiratory failure would change the MS-DRG. MS-DRG 282 (weight = 00.7736) would be assigned for myocardial infarction alone, with atrial fibrillation, with hypertension, and with history of myocardial infarction (Medicare Grouper Version 30-10/12).
53. c Pneumonia, diabetes, hypertension should be coded. The migraine headaches are a past condition and would not be coded as per the reporting guidelines for the UHDDS for "other conditions" (HHS 2014, Section III, 100–101).
54. b Pressure ulcer, diabetic neuropathy and diabetic retinopathy, and blindness should be coded. Diabetes and related conditions are chronic conditions that ordinarily should be coded and the patient required nursing care because of her blindness (HHS 2014, Section I.C.4.a., 32).
55. b The hernia is an incidental finding. The condition does not meet the UHDDS criteria of an "other" condition (HHS 2014, Section III, 100–101).
56. d Query the physician regarding whether a diagnosis should be assigned or not. It is not within the coder's scope of practice to diagnose a condition (HHS 2014, Section III.B., 101).
57. c Metastatic carcinoma of the brain; history of carcinoma of the prostate. The patient does not have a current cancer of the prostate however is being admitted and treated for metastatic cancer (to the brain, from the prostate) (HHS 2014, Section I.C.2.b, 26 and I.C.2.m, 31).
58. c Payment status indicators that are assigned to an APC and indicate APC payment are G, H, K, P, R, S, T, U, X, and V. Status indicator N denotes that there is no specific payment for that APC because the procedure payment is included in another APC. There may be multiple APCs with the same or different payment status indicator per claim. In this case, all APCs impact payment except the one with status indicator N (Casto and Forrestal 2013, 176–179).
59. d Multiple surgical procedures with payment status indicator T performed during the same operative session are discounted. The highest-weighted status T procedure is fully reimbursed. All other procedures with payment status indicator T are reimbursed at 50%. In this case there is only one status T procedure and it is paid 100% (Casto and Forrestal 2013, 184).
60. a Multiple surgical procedures with payment status indicator T performed during the same operative session are discounted. The highest-weighted procedure is fully reimbursed. All other procedures with payment status indicator T are reimbursed at 50%. Because of this, if another T procedure were coded, it would be reimbursed at 50% (Casto and Forrestal 2013, 184).
61. d The codes are differentiated according to the route of administration. For Medicare cases, a Level II HCPCS code (J series) is reported with the identification of the specific substance or drug; for non-Medicare cases, code 99070 may be reported. In this case, use both 96372 and J056 (Smith 2015, 231–232). *Note:* HCPCS codes are used in the multiple choice questions but are not assigned when coding the cases on the CCS exam. Refer to the Procedures for Coding Medical Record Cases for the CCS Examination in the Introduction of this book.
62. d Several tools and references are used to support the reimbursement process including the fee schedule and the current National Correct Coding Initiatives edits. Other valuable resources are Medicare's Carrier Manual, Medicare's National Coverage Determinations Manual, and local coverage determinations (LCDs) (Kuehn 2014, 318–322).



63. a The UHDDS item 11-b defines *other diagnoses* as “all conditions that coexist at the time of admission, that develop subsequently or that affect the treatment received or the length of stay” (HHS 2014, Section III, 100–101).
64. a Assign a diagnostic code for mitral regurgitation. If the diagnostic test has been interpreted by a physician the coder can assign a diagnosis (HHS 2014, Section IV.K., 104–105).
65. a Assign codes for malignant melanoma of forearm, hypertension. Code chronic conditions if they affect the patient’s treatment. The hypertension was being treated with a current medication and for this reason the hypertension is coded (HHS 2014, Section IV.A.1 and Section IV.J, 102–104).
66. d Do not assign a code for this condition because this is a frequent condition in the elderly, is asymptomatic, and there is no documentation of treating the condition so it should not be coded (HHS 2014, Section III, B, 101).
67. d Assign a code for the chief complaint as the reason for the visit in the absence of a diagnosis or defined problem, the chief complaint should be coded as the reason for the visit (HHS 2014, Section IV.G., 104).
68. b Surgical procedure names can be similar and it is important to have reference books in which to look up procedures in order to determine reportable and nonreportable procedures (Smith 2015, 36).
69. b The OCE has four basic functions: editing the data on the claims for accuracy, specifying the action the FI should taken when specific edits occur, assigning APCs to the claim (for hospital outpatient services), and determining payment-related conditions that require direct reference to HCPCS codes or modifiers. Routine edits for age and sex are done on all claims (Smith 2015, 256).
70. c The *case-mix index* is the average MS-DRG weight based on the specific patient group and is determined by multiplying the DRG weights by the number of patients and then divided by the total number of patients:  $30 + 20 + 10 = 60 / 30 = 2.0$  (LaTour, Eichenwald Maki, and Oachs 2013, 496; Casto and Forrestal, 2013, 127; Sayles 2013, 269).
71. a **MS-DRG 195 (weight = 3.0) Simple pneumonia and pleurisy age >.17 w/CC results in higher reimbursement than MS-DRG 193 (weight = 2.0) Simple pneumonia without MCC or CC.** Note that these are not actual weights for these DRGs.
72. d In the paper chart, a line can be drawn through an erroneous entry, initialed, and the correction made along the margin. In an electronic record, the correction may be placed in the wrong sequence, which may adversely impact patient care (Sayles 2013, 1011).
73. c For reporting purposes the definition for *other diagnoses* is interpreted as additional conditions that affect patient care in terms of requiring: clinical evaluation; or therapeutic treatment; or diagnostic procedures; or extended length of hospital stay; or increased nursing care or monitoring (HHS 2014, Section III, 100–101).
74. d The use or application of the data and the purpose for the collection of the data is key to understanding its quality (LaTour and Eichenwald Maki 2013, 173).



75. d Information is used for many purposes and therefore lack of data quality affects many areas (LaTour and Eichenwald Maki 2013, 173).
76. c Unprocessed data are not useful for decision making and for this reason processing data creates information that is useful (LaTour and Eichenwald Maki 2013, 170).
77. c The goal of information management is to support decision making (LaTour and Eichenwald Maki 2013, 922).
78. a There are many characteristics of data but in terms of timeliness, a patient's medications being available for patient care is an important example (LaTour and Eichenwald Maki 2013, 183).
79. c Data mining is associated with data warehouses. *Data mining* is a process that identifies patterns and relationships by searching through large amounts of data. Because data warehouses contain large amounts of data, data mining processes are frequently used to systematically analyze these data. In healthcare, data mining is used to identify methods for cutting healthcare costs, suggest more appropriate medical treatments, and predict medical outcomes (Sayles 2013, 887).
80. c *DRG groupers* are software programs that help coders determine the appropriate MS-diagnosis-related group (DRG) assignment based on the logic of the system for hospital inpatients. *APC groupers* are software programs that help coders determine the appropriate ambulatory payment classification for an outpatient encounter (Sayles 2013, 395).
81. a An *information system* (IS) consists of data, people, and work processes and a combination of hardware (machines and media), software (computer programs), and communication technology (computer networks) known as information technology (IT) (Sayles 2013, 850).
82. d Health information exchanges (HIEs) are created to connect providers, patients, payers, and other parties through telecommunication and computer networks, thus enabling data transfer as needed (Sayles 2013, 888).
83. c Cryptography is a field that develops methods to ensure data security. A digital signature scheme is a public key that ensures a document is authentic (Sayles 2013, 1042).
84. d There are many types of malware including viruses, spyware, and backdoor. A bus topology is a method of data flow through a network where each computer is connected to a common backbone through a connector (Sayles 2013, 892, 1031–1032).
85. c By definition, clinical information systems are designed to support patient care but may also be used for quality improvement, peer review, or research, all of which ultimately contribute to better patient care (Sayles 2013, 912).
86. c Object-oriented databases are becoming increasingly common. An object-oriented database stores objects of data. An object is a discrete or abstract thing such as a car. Data objects can model relational data or advanced data types such as graphics (Sayles 2013, 879).
87. c Reviewing the history and physical of a coworker when not part of assigned work is not ethical because the review is not part of designated work. This violates the ethical principal of acting with integrity and behaving in a trustworthy manner (AHIMA, 2011; Brodnik 2012, 5, 272, 326).



88. a The HIM professional must know the retention statutes and retention periods in his or her state of employment (LaTour and Eichenwald Maki 2013, 311). Institutions should strive to retain their records for at minimum the period specified under statute and regulation (Brodnik 2012, 188–191).
89. b The role of the *risk manager* is to collect and analyze information on actual losses and potential risks and to design systems that lessen potential losses in the future. An incident report is a structured tool used to collect data and information about any event not consistent with routine operational procedures (Sayles 2013, 613).
90. a *Coding compliance policies* serve as a guide to performing coding and billing functions and provide documentation of the organizations' intent to correctly report services. The policies should include facility-specific documentation requirements, payer regulations and policies, and contractual arrangements for coding consultants and outsourcing services. This information may be covered in payer/provider contracts or found in Medicare and Medicaid manuals and bulletins (AHIMA 2008, 83–88; Casto and Forrestal, 2013, 43–45).
91. b Under HIPAA Administrative Simplifications, Standards for Electronic Transactions and Code Sets were identified to ensure standardization during electronic transactions, such as healthcare claims, healthcare payments and remittance advice, and coordination of benefits (Casto and Forrestal 2013, 262).
92. a In those rare instances when two or more contrasting or comparative diagnoses are documented as “either/or” (or similar terminology), they are coded as if the diagnoses were confirmed and the diagnoses are sequenced according to the circumstances of the admission. If no further determination can be made as to which diagnosis should be principal, either diagnosis may be sequenced first. (HHS 2015, Section II, D, 98).
93. b *External cause of injury codes* are used to provide information about how an injury occurred, the intent (intentional or unintentional), provide information about where the injury occurred, and the status of the person at the time the injury occurred. In the case of a person who seeks care for an injury or other health condition that resulted from an activity, or when an activity contributed to the injury or health condition, activity codes are used to describe the activity (HHS 2014, Section I.20., 76–81).
94. d These elements are used to determine the MS-DRG. MS-DRG assignment goes through four steps: Pre-MDC assignments, MDC determination, Medical/surgical determination, and refinement. These steps are based on surgical procedure codes, diagnosis codes, complications and/or comorbidities, and discharge disposition and other patients' characteristics (Schraffenberger 2013, 488).
95. c These elements determine the MS-DRG assignment. The hospital payment calculation is based on the MS-DRG weight; however, the weight does not determine MS-DRG assignment (Schraffenberger 2013, 487–488).
96. c These activities are part of the claims review required by QIOs. These responsibilities are delineated in the Center for Medicare and Medicaid website, as well (CMS 2013).
97. b *Medical necessity* is “a service or supply provided for the diagnosis, treatment, cure or relief of health conditions, illness, injury, or disease.” These services must be necessary and appropriate and within generally accepted standards of medical care. They must not be provided simply for convenience (Casto and Forrestal 2013, 108).



## EXAM 1 — PATIENT 1

PDX	D05.11	Intraductal carcinoma in situ of right breast
PP1	19301-RT	Mastectomy, partial (eg, lumpectomy, tylectomy, quadrantectomy, segmentectomy)
PR2	38525	Biopsy or excision of lymph node(s); open, deep axillary node(s)
PR3	38792	Injection procedure; radioactive tracer for identification of sentinel node

## Notes on Outpatient 1

- D05.11 This is an example of intraductal carcinoma in-situ of the breast. By looking up the morphologic type of carcinoma, intraductal of breast in the Alphabetic Index, the coder is directed to code D05.1. Review of the Tabular is necessary to complete the code (HHS 2014, Section I.C.2., 25-26).
- 19301-RT The patient underwent a lumpectomy. The modifier -RT is also important because the breast is a paired organ (*CPT Assistant* Feb. 2007, 4; Dec. 2007, 8; Sept. 2008, 5, March 2010, 10).
- 38525 Sentinel lymph node dissection was undertaken (*CPT Assistant* May 1998, 10; July 1999, 7; Oct. 2005, 23; Dec. 2007, 8; Sept. 2008, 5).
- 38792 The injection of radioactive tracer to visualize the sentinel node in the OR may be reported separately with code 38792 (*CPT Assistant* July 1999, 7, 12; *CPT Changes: An Insider's View* 2008, 2013).



**EXAM 1 — PATIENT 2**

PDX	H18.12	Bullous keratopathy, left eye
DX2	H27.02	Aphakia, left
DX3	H40.10X2	Unspecified open-angle glaucoma, moderated stage
DX4	H20.13	Chronic iridocyclitis, bilateral
DX5	I20.9	Angina pectoris, unspecified
DX6	J44.9	Chronic obstructive pulmonary disease, unspecified
PP1	65750-LT	Keratoplasty (corneal transplant); penetrating (in aphakia)
PR2	66985-LT	Insertion of intraocular lens prosthesis (secondary implant), not associated with concurrent cataract removal
PR3	67010-LT	Removal of vitreous, anterior approach (open sky technique or limbal incision); subtotal removal with mechanical vitrectomy

**Notes on Outpatient 2**

- H18.12 The conditions specified in the record should be coded (HHS 2014, Section IV.A.1., 103; HHS 2014, Section IV.G., 104).
- H27.02 The patient is aphakic and this should be coded (HHS 2014, I.C.21.c, p.83)
- H40.10X2 The glaucoma is documented and should be coded (HHS 2014, I.C.7a, p.39)
- H20.13 The conditions specified in the record should be coded (HHS 2014 Section IV.A.1., 103; HHS 2014, Section IV.G., 104)
- I20.9 Angina should be coded as it meets the UHDDS definition of another diagnosis (HHS 2014, Section IV.G., 104 and HHS 2014, Section III., 100).
- J44.9 COPD should be coded as it meets the UHDDS definition of another diagnosis (HHS 2014, Section IV.G., 104 and HHS 2014, Section III., 100).
- Note:* History of prostate cancer is not coded because it does not have an effect on the current encounter (HHS 2014, Section III, 100).
- Note:* The -LT modifier denoting the left eye is used on all of the procedure codes:
- 65750-LT CPT Assistant Oct. 2002, 8; April 2009, 5; Dec. 2009, 13
- 66985-LT CPT Assistant Sept. 2005, 12; Sept. 2009, 5
- 67010-LT CPT Assistant Fall 1992, 4



**EXAM 1 — PATIENT 3**

<b>PDX</b>	S42.301A	Unspecified fracture of shaft of humerus, right arm, initial encounter for closed fracture
<b>DX2</b>	F17.200	Nicotine dependence, unspecified, uncomplicated
<b>PP1</b>	24505-LT	Closed treatment of humeral shaft fracture; with manipulation, with or without skeletal traction
<b>PR2</b>	99284-25	E/M code based on mapping scenario provided (50 total points*)

**Notes on Outpatient 3**

S42.301A	The patient has sustained a fracture of the shaft of the right humerus (HHS 2014, Section IV.G., 104).
F17.200	The patient received tobacco cessation counseling and instructions to see her primary care physician (HHS 2014, Section III, 100).
24505-LT	In CPT, reduction is termed treatment of fracture with manipulation.
99284-25	Calculate the evaluation and management code for the outpatient visit. *According to the mapping scenario; meds given are = 2 = 5 points, the history is problem focused = 10 points, the exam is extended problem focused = 15 points, the number of tests = 5 = 15 points, supplies = 1 fracture tray = 5 points. Total is 50 points.

**EXAM 1 — PATIENT 4**

<b>PDX</b>	I25.10	Atherosclerotic heart disease of native coronary artery without angina pectoris
<b>PP1</b>	93460	Catheter placement in coronary artery(s) for coronary angiography, including intraprocedural injection(s) for coronary angiography, imaging supervision and interpretation; with right and left heart catheterization including intraprocedural injection(s) for left ventriculography, when performed
<b>PR2</b>	93567	Injection procedure during cardiac catheterization including imaging supervision, interpretation, and report; for supraaortic aortography (List separately in addition to code to code for primary procedure.)

**Notes on Outpatient 4**

I25.10	The patient has arteriosclerotic heart disease with no history of cardiac bypass (Leon-Chisen 2013, 392).
93460	Catheter placement in coronary artery(s) for coronary angiography, including intraprocedural injection(s) for coronary angiography, imaging supervision and interpretation; with right and left heart catheterization including intraprocedural injection(s) for left ventriculography, when performed (Kuehn 2014, 265-266).
+93567	Injection procedure during cardiac catheterization including imaging supervision, interpretation, and report; for supraaortic aortography. (List separately in addition to code to code for primary procedure.) (Kuehn 2014, 265-266)



**EXAM 1 — PATIENT 5**

PDX	O69.81X0	Labor and delivery complicated by cord around neck, without compression, not applicable or unspecified
DX2	Z37.0	Single live birth
DX3	O99.42	Diseases of the circulatory system complicating childbirth
DX4	I34.0	Nonrheumatic mitral (valve) insufficiency
DX5	Z3A.38	38 weeks of gestation
PP1	0W8NXZZ	Episiotomy
PP2	10E0XZZ	Division of female perineum, external approach

**Notes on Inpatient 5**

O69.81X0	As per the delivery note, this is a delivery with a nuchal cord wrapped around the baby's neck (HHS 2014, Section I.C.15.b.4., 54).
Z37.0	Outcome of delivery code (HHS 2014, Section I.C.15.b.5., 55). This heart valve condition should be coded because it affects the monitoring of the patient and was documented in the medical record. (HHS 2014, Section I.C.15.c., 55). The second code provides specificity by identifying the specific condition (Leon-Chisen 2013, 331).
O99.42, I34.04	
Z3A.38	Weeks of gestation must be coded for all codes in Chapter 15.
0W8NXZZ	Episiotomy—the repair of an episiotomy is included in the code (Leon-Chisen 2013, 336).
10E0XZZ	Assisted spontaneous delivery (Delivery of Products of Conception, External Approach), (Leon-Chisen 2013, 337)

**Points of Interest on Patient 5**

1. In terms of documentation, this case is typical of many delivery charts. Often times, practitioners document the complication of delivery in only one area, such as the delivery note or the operative report. In this case, the baby has a nuchal cord, but it is only mentioned once in the delivery record.
2. This is also an illustration of the three types of codes, at a minimum, that must be on every delivery chart: a diagnostic code from the delivery or pregnancy category, an outcome of birth code, and a procedure code.



**EXAM 1 — PATIENT 6**

<b>PDX</b>	J15.6	Pneumonia due to other aerobic Gram-negative bacteria
<b>DX2</b>	E11.319	Type 2 diabetes mellitus with unspecified diabetic retinopathy without macular edema
<b>DX3</b>	E11.65	Type 2 diabetes mellitus with hyperglycemia
<b>DX4</b>	I10	Essential hypertension, unspecified
<b>DX5</b>	Z16.29	Resistance to other single specified antibiotic
<b>DX6</b>	M17.0	Bilateral primary osteoarthritis of knee
<b>DX7</b>	I35.0	Nonrheumatic aortic (valve) stenosis
<b>DX8</b>	Z79.4	Long term (current) use of insulin

**Notes on Inpatient 6**

- J15.6 Gram-negative pneumonia documented on the H & P and 2/2 progress note (Leon-Chisen 2013, 226).
- E11.319 Type 2 diabetes mellitus (insulin requiring) used because the diabetes mellitus type is not specified (HHS 2014, Section I.C.4.a.1-3., 32).
- E11.65 Diabetes documented as out of control is coded by type with hyperglycemia. The 1/31 progress note addresses treatment plan for diabetes out of control. Orders of 1/31 and 2/1 reflect treatment (HHS 2014, Section I.C.4.a.1-3., 32).
- Z16.29 Reported because the resistant organism is documented in the discharge summary and laboratory reports. Furthermore, the patient tried erythromycin and needed to be changed to another antibiotic (HHS 2014, Section I.C.1.c., 19–20).
- M17.0 Bilateral Osteoarthritis of the knees is documented on H&P in past medical history (HHS 2014, Section III, 100).
- I35.0 Aortic stenosis is documented in the D/C summary, H & P, and the orders (HHS 2014, Section III, 100).
- Z79.4 The patient has been on insulin long term (HHS 2014, Section I.C.4.a.3., 32).

**Points of Interest on Inpatient 6**

1. The patient has pneumonia and documentation needs to have the organism causing the pneumonia specified in the medical record in areas other than just the sputum culture.
2. Coders should only use the Z codes denoting resistance when the resistance is documented by the physician(s) involved.



## EXAM 1 — PATIENT 7

PDX	C34.32	Malignant neoplasm of lower lobe, left bronchus or lung
DX2	I97.88	Other intraoperative complications of the circulatory system, not elsewhere classified
DX3	I21.4	Non-ST elevation (NSTEMI) myocardial infarction
DX4	I10	Essential (primary) hypertension
DX5	I95.89	Other hypotension
DX6	J44.9	Chronic obstructive pulmonary disease, unspecified
DX7	M47.816	Spondylosis without myelopathy or radiculopathy, lumbar region
DX8	I69.951	Hemiplegia and hemiparesis following unspecified cerebrovascular disease affecting right dominant side
DX9	Z87.891	Personal history of nicotine dependence
DX10	Z92.3	Personal history of irradiation
PP1	0BTL0ZZ	Resection of left lung, open approach

## Notes on Inpatient 7

C34.32	Recurrent lung cancer is documented in the H & P, discharge summary, and operative report (HHS 2014, Section I.C.2.a., 26).
I97.88	A myocardial infarction occurred during the operation (HHS 2014, Section I.C.19.g.5., 75).
I21.44	Postoperative/intraoperative myocardial infarction is documented in the progress notes (HHS 2014, Section I.C.19.g.5., 75).
I10	Hypertension documented in the H & P and the D/C summary (HHS 2014, Section III, 100).
I95.89	This is the precipitating factor causing the MI (HHS 2014, Section III, 100).
0BTL0ZZ	Pneumonectomy is documented in the operative report.
J44.9, M47.816	Should be coded because they are documented in the medical record and are relevant to the admission (HHS 2014, Section III, 100). <i>Note:</i> This is documented as being in the lumbar spine in the H&P.
I69.951	The residual effects of the cerebrovascular condition should be coded (HHS 2014, Section I.C.9.1.d,44)
Z87.891	History of tobacco use (HHS 2014, Section I, C, 21, c4, 87).
Z92.3	Personal history of radiation. (HHS 2014, Section I, C, 21, c4, 88).
0BTL0ZZ	Removal of the lung is noted in the operative record (Leon-Chisen 2013, 236).

## Point of Interest on Inpatient 7

1. This case allows the coder to practice coding an intraoperative complication. Further, the coder needs to differentiate if the myocardial infarction caused the hypotension or if the hypotension caused the myocardial infarction. In this case, the intraoperative hypotension occurred, which resulted in an MI. This case illustrates that problem. This is a clinical scenario about which coders have little education.



**EXAM 1 — PATIENT 8**

PDX	I21.19	ST elevation (STEMI) myocardial infarction involving other coronary artery of inferior wall
DX2	I44.2	Atrioventricular block, complete
DX3	K92.0	Hematemesis
DX4	D62	Acute posthemorrhagic anemia
DX5	E78.5	Hyperlipidemia, unspecified
DX6	I25.10	Atherosclerotic heart disease of native coronary artery without angina pectoris
DX7	R11.2	Nausea with vomiting, unspecified
DX8	T41.205A	Adverse effect of other and unspecified general anesthetics, initial encounter
DX9	Z87.891	Personal history of nicotine dependence
PP1	021109W	Bypass Coronary Artery, Two Sites from Aorta with Autologous Venous Tissue, Open Approach
PR2	02703DZ	Dilation of Coronary Artery, One Site with Intraluminal Device, Percutaneous Approach
PR3	4A023N7	Measurement of Cardiac Sampling and Pressure, Left Heart, Percutaneous Approach
PR4	B211YZZ	Fluoroscopy of Multiple Coronary Arteries using Other Contrast
PR5	B215YZZ	Fluoroscopy of Left Heart using Other Contrast
PR6	0DJ04ZZ	Inspection of Upper Intestinal Tract, Percutaneous Endoscopic Approach
PR7	06BQ4ZZ	Excision of Left Greater Saphenous Vein, Percutaneous Endoscopic Approach
PR8	5A1221Z	Performance of Cardiac Output, Continuous
PR9	3E03317	Introduction of Other Thrombolytic into Peripheral Vein, Percutaneous Approach

**Notes on Inpatient 8**

- I21.19 Acute inferior MI is documented on the 4/20 EKG. This is also evident from the laboratory reports because the CK-MB is elevated (HHS 2014, Section I.C.9.e.1., 45).
- I44.2 Complete heart block is documented on the discharge summary, the H & P, and the EKG (Schraffenberger 2013, 206–207).
- K92.0 Code the hematemesis because no cause has been found (HHS 2014, Section I.B.18., 16).
- D62 Following the upper gastrointestinal bleeding, the patient experienced acute blood loss anemia. This is documented in the 4/22 progress note (Leon-Chisen 2013, 193).
- E78.5 Hyperlipidemia is documented on the H & P and summary (Schraffenberger 2013, 131).
- I25.10 Patient is found to have arteriosclerotic heart disease. Code the native artery (fifth digit 1) because the patient has never undergone bypass surgery prior to this admission. Therefore, assume the ASHD is of the native artery (Leon-Chisen 2013, 392).



- R11.2 Nausea and vomiting is the adverse effect of a drug (E938.4) (HHS 2014, Section I.C.19.e.5., 71–72).
- T41.205 Adverse effect of anesthesia (HHS 2014, Section I.C.19.e.5., 71–72).
- Z87.891 History of tobacco use (HHS 2014, Section I.C.21.c.4., 87–88).
- 021109W CABG ×2 on same artery is coded to “coronary artery, two sites” (Leon-Chisen 2013, 423–426).
- 02703DZ Insertion non-drug-eluting stents (Leon-Chisen 2013, 421–422).
- 4A023N7 Left heart catheterizations (Leon-Chisen 2013, 413).
- B211YZZ Angiography using a single catheter (Leon-Chisen 2013, 414).
- B215YZZ Ventriculography (Leon-Chisen 2013, 414).
- 0DJ04ZZ EGD (Leon-Chisen 2013, 101, 248).
- 06BQ4ZZ Excision of the saphenous vein for grafting. This is to be coded separately per ICD-10-PCS coding guidelines.
- 5A1221Z Extracorporeal (Leon-Chisen 2013, 425).

#### Points of Interest on Patient 8

- Review of the EKG identifies the site of acute inferior myocardial infarction. Review the coding guidelines related to ST elevation myocardial infarction (STEMI) and non-ST elevation myocardial infarction (NSTEMI) (HHS 2014, Section I. C. 9. e, 1, 45).
- This case also requires a code for the upper gastrointestinal hemorrhage because there is no specified cause; therefore, the hematemesis is coded.
- Recognize nausea and vomiting is an adverse effect of anesthesia.
- The CABG and the heart catheterization provide practice in coding these types of procedures. Remember when coding stents, review the documentation for drug eluting or non-drug eluting. Also code the angiography and ventriculography, if done at the time of a cardiac catheterization.
- If cardiopulmonary bypass (extracorporeal circulation) is used, code this procedure also.
- Infusion of TPA is not coded as per the coding guidelines. “Do not code procedures that fall within the code range 2W0 (Placement) through HZ9 (Substance Abuse Treatment) sections.”



## Practice Exam 2

1. a A miscarriage is a spontaneous abortion. If the readmission is for the purpose of dealing with retained products of conception, a code from the O03 category (HHS 2014, Section I.C.15.q.2., 60).
2. a Recurring mood changes that result in periods of severe depression alternating with extreme elation that are beyond the normal range of mood swings are called bipolar or circular disorders (Leon-Chisen 2013, 175–176).
3. d A cesarean section is performed for a variety of reasons, such as cephalopelvic disproportion (CPD), prolapsed cord, fetal distress, and conditions of the mother. Based on the information given in this case, fetal head was measured and then it was decided a cesarean section should be performed. It is likely that the reason for this was CPD; therefore, physician should be queried (Leon-Chisen 2013, 327; APA 2007; Lovaasen and Schwerdtfeger 2011, 624).
4. c With the documented clinical indicators, it would be appropriate to query the physician regarding the possibility of a complication resulting from surgery. When formulating a query, it is unacceptable to lead a provider to document a particular response. The query should not be directing or probing and the provider should not be led to make an assumption (Lovaasen and Schwerdtfeger 2011, 42; HHS 2014, Section I.B.16., 16).
5. d If there is evidence of a diagnosis within the medical record and the coder is uncertain whether it is a valid diagnosis because the documentation is incomplete, it is the coder's responsibility to query the attending physician to determine if this diagnosis should be included (Leon-Chisen 2013, 43–44).
6. b Esophageal varices are often associated with cirrhosis of the liver. If documented, dual coding is required with the underlying condition coded first (Leon-Chisen 2013, 246).
7. a An inpatient is a patient who is provided with room, board, and continuous general nursing services in an area of an acute-care facility where patients generally stay at least overnight (Sayles 2013, 479; Scott 2009, 3).
8. d The patient is being seen in the emergency department, which is a hospital outpatient department. Because of this, all CPT and HCPCS codes should be captured so that the correct reimbursement is obtained (Kirchoff 2009, 33–42).
9. b According to AHIMA documentation guidelines, any additional late entry to the record should be labeled as such and these addenda should be added if the physician is queried but the associated documentation to support the code assignment is not present in the original record. In this case, it is an addendum (Sayles 2013, 120).
10. b The committee that is responsible for ensuring that medical records are complete is the Medical record Committee but it reports to the Medical Executive Committee (LaTour and Eichenwald Maki 2013, 265).
11. c There are many areas that accrediting agencies review but timeliness and legibility of medical documents are two of the most important aspects of medical record management (LaTour and Eichenwald Maki 2013, 264).



12. d In a nonteaching hospital, only the attending physician needs to sign the documents in the medical record. However, in teaching hospitals, the attending should co-sign after the resident signs the documentation (LaTour and Eichenwald Maki 2013, 265).
13. c The patient is discharged with hemiplegia and aphasia. These conditions in addition to the acute cerebral infarction should be coded. In addition to this coding clinic guideline, this answer is supported by the UHDDS reporting guidelines for other diagnosis. Hemiplegia and aphasia are not an integral part of cerebral infarction (HHS 2014, Section I. C.9.d, 44; Leon-Chisen 2013, 401).
14. a In those rare instances when two or more contrasting or comparative diagnoses are documented as "either/or" (or similar terminology), they are coded as if the diagnoses were confirmed and the diagnoses are sequenced according to the circumstances of the admission. If no further determination can be made as to which diagnosis should be principal, either diagnosis may be sequenced first (HHS 2015, Section II.D., 98).
15. c In this case, there is documentation of the ventilator associated pneumonia (VAP) assigned to code J95.851. An additional code to identify the organism should also be assigned. No additional codes to identify the type of pneumonia are assigned (HHS 2014, Section I.C.10.d.1., 47–48).
16. d An adverse reaction can occur when a drug was correctly prescribed and administered. In the case of an adverse reaction, the manifestation is coded first (Hematuria) followed by an T code for the medication (Coumadin) (HHS 2014, Section I.C.19.e.5.a. 71–72).
17. c Pleural effusion can be a symptom of CHF; however, in this case, it can be coded because it meets the definition for coding additional diagnosis (it required a diagnostic procedure and it was still unresolved at discharge) (HHS 2014, Section III, 100–101). The sequencing of the two codes would depend on the documentation.
18. c This is a confirmed AIDS case; therefore, the AIDS is sequenced as principal diagnosis, followed by the additional diagnosis code for the MSSA pneumonia (HHS 2014, Section I, C, 1, a, 1–2., 17–18).
19. d When assigning codes for diabetes and its associated conditions, the code(s) from the diabetes category must be sequenced before the codes for the associated conditions (HHS 2014, Section I, C, 4., 32).
20. d Heart conditions are assigned a combination code when a causal relationship is stated (due to hypertension) or implied (hypertensive). Use an additional code to identify the type of heart failure in those patients with heart failure (HHS 2014, Section I, C, 9, a.1., 41).
21. c The ICD-10-CM Neoplasm table directs the coder to neoplasm, skin, knee, and the correct answer is C44.721 (HHS 2014, Section I.C.2., 25–26).
22. a Alphabetic Index for fracture, traumatic; orbit, orbital; roof guides the coder to S02.19 (Leon-Chisen 2013, 481–486).
23. d Both burns are at the same body part; therefore, only the highest degree burn should be coded (HHS 2014, Section I.C.19.d.2., 69).
24. b An intentional drug overdose is coded as poisoning (HHS 2014, Section I, C, 19, e, 5, b, ii, 72).



25. d When the drug was taken as prescribed, code the reaction plus the appropriate T code to represent the adverse effect (HHS 2014, Section I, C, 19, e,5,a., 71).
26. d The patient has an acute peptic ulcer with perforation and hemorrhage. The patient has chronic blood loss anemia due to the hemorrhage. Blood-loss anemia not otherwise specified is coded to D50.0. Combination codes are provided for gastric, gastroduodenal, and duodenal ulcers that indicate whether there is associated bleeding, associated perforation, or both (Leon-Chisen 2013, 193, 244).
27. a Manipulation refers to the attempted reduction or restoration of a dislocated joint or fracture (Smith 2015, 84).
28. c When multiple wounds are repaired with the same closure type (for example, simple), lengths of the wounds in the same classification and from all anatomical sites that are grouped together into the same code descriptor should be added together (Smith 2015, 67).
29. d A complex repair of a wound goes beyond a layer closure and requires scar revision, debridement, extensive undermining, stents, or retention sutures (Smith 2015, 66).
30. a Codes 65710–65757 are used to describe keratoplasty or corneal transplants. This case does not mention penetrating but anterior lamellar keratoplasty. Therefore, the correct code assignment is 65710, Keratoplasty (corneal transplant), anterior lamellar (*CPT Changes Insider's View* 2009).
31. c Codes 49650–49659 describe procedures related to laparoscopic hernia repairs. Note that 49657 was a new code in 2009 to specifically describe laparoscopic surgical repair of recurrent incisional hernia, incarcerated (including mesh insertion) (Smith 2015, 123–125).
32. b Code 50593, Ablation, renal tumor(s), unilateral, percutaneous, cryotherapy is used for cryoablation of renal tumors (*AMA CPT Professional Edition* 2014, 298).
33. b CPT codes 92920-LC and 92921-LD would be reported for transcatheter stenting (Smith 2015, 221–222).
34. a Surgery is the only treatment for diaphragmatic hernias. ICD-10-PCS code 0BQR4ZZ, is used for laparoscopic repair of diaphragmatic hernia.
35. b This episode of care occurs in the ER which is an outpatient setting, therefore, a CPT code should be used. CPT code 36831 correctly identifies the thrombectomy procedure (Kirchoff 2009, 203).
36. d A myringotomy for insertion of ventilating tubes is a tympanostomy, which is described by codes 69433–69436. Code 69436, Tympanostomy (requiring insertion of ventilating tube), general anesthesia describes the procedure performed. In addition, this procedure was performed bilaterally, therefore, modifier –50 is added (Smith 2015, 154).
37. d The documentation needed to properly code removal of skin tags includes diagnosis of skin tags and the number of skin tags removed. These details are provided in the scenario given, therefore, the correct code assignment is 11200, Removal of skin tags, multiple fibrocuteaneous tags, any area; up to and including 15 lesions (Smith 2015, 61).



38. d The code 31526 is assigned because the patient had a laryngoscopy with an operating microscope. The use of a microscope and whether or not the laryngoscopy was direct are two key issues that must be considered when assigning the CPT code. Codes 31515–31571 are used to identify a direct laryngoscopy. It is inappropriate to use code 69990, Use of operating microscope, in addition to any laryngoscopy code identified as being done with an operating microscope (AMA 2013, 160; Smith 2015, 94–95).
39. a The designation of the principal diagnosis depends on the circumstances of the admission. In this case the patient has psychosis and this should be sequenced first with the substance coded second (Leon-Chisen 2013, 182).
40. c Ventilator-associated pneumonia is assigned with the additional code for the organism. No other pneumonia code is assigned in addition to ventilator associated pneumonia (HHS 2014, Section I.C.10.d.1., 47–48).
41. b *Status asthmaticus* is defined as continual wheezing in spite of therapy (Leon-Chisen 2013, 230).
42. a Gastrointestinal bleeding manifests itself in several ways. These are hematemesis, melena, occult bleeding, hematochezia (Leon-Chisen 2013, 244).
43. c Codes for mechanical ventilation indicate whether the patient was on mechanical ventilation for fewer than 96 hours or more than 96 hours. The start time for calculating the duration begins with the start time of endotracheal tube insertion as the best method, followed by mechanical ventilation or the time that a patient who is on mechanical ventilation is admitted. The time ends with discontinuance of mechanical ventilation (Leon-Chisen 2013, 239–240).
44. a Both augmentation of breast for improved appearance and reduction of breast size are considered types of reconstruction (Leon-Chisen 2013, 276).
45. b The three types of pacemakers are single chamber, single chamber rate responsive, and dual chamber. A single chamber uses a single lead; a dual chamber requires two leads, one in the atrium and one in the ventricle. The leads should also be coded (Leon-Chisen 2013, 416–418).
46. d The open biopsy is performed prior to the definitive surgery so that the pathologist can perform a frozen section of the tissue to determine malignancy. Approaches, suturing, and closure are not coded separately. Exploratory surgery is not coded when definitive surgery is performed (Leon-Chisen 2013, 92).
47. a Poisoning codes for aspirin and heparin and subcutaneous hemorrhage of the thigh of the right lower extremity as secondary conditions. This is considered a poisoning because the patient took an over-the-counter (OTC) medication (aspirin) without consulting the clinical providers of a prescribed medication. Taking an OTC with a prescription medication is a criterion of poisoning. When coding a poisoning or reaction to the improper use of a medication (eg, overdose, wrong substance given or taken in error, wrong route of administration), first assign the appropriate code from categories T36–T50. The poisoning codes have an associated intent as their 5th or 6th character (accidental, intentional self-harm, assault, and undetermined). Use additional code(s) for all manifestations of poisonings (Leon-Chisen 2013, 514; HHS 2014, Section I.C.19.e.5.b, 72).
48. b Code both the hypertensive heart disease and stage 5 kidney disease as well as a code for the congestive heart failure and the chronic kidney disease, stage 5 (HHS 2014, Section I.C.9.a.3, 41–42; HHS 2014, Section I.C.14.a.1, 51).



49. c According to the UHDDS definition of the secondary diagnosis, a secondary or additional diagnosis is the diagnosis which receives clinical evaluation, therapeutic treatment, further evaluation, extends length of stay, or increases nursing monitoring/care (HHS 2014, Section III, 100).
50. b Beginning in fiscal year 2009, CMS designated stage III and IV pressure ulcers as a hospital acquired condition (HAC). If a HAC diagnosis is present at admission (Y), it will continue to be classified as CC or MCC and will impact MS-DRG reimbursement. If a HAC diagnosis is not present at admission (N), it will no longer be classified as CC or MCC and will decrease MS-DRG reimbursement (Garrett 2009, 11).
51. c According to the UHDDS definition of the principal diagnosis is "that condition established after study to be chiefly responsible for occasioning the admission of the patient to the hospital for care." In this case, metastatic carcinoma of the brain is responsible for the patient's fall, ataxia and syncope (HHS 2014, Section II, 97).
52. b Congestive heart failure includes symptoms such as shortness of breath and pleural effusion. Since these symptoms are the main reason for admission, congestive heart failure is the probable principal diagnosis (HHS 2014, Section II, 97).
53. a This is an instance when two diagnoses equally meet the definition of principal diagnosis; therefore, either of the diagnoses may be sequenced as principal diagnosis (HHS 2014, Section II, C, 98).
54. a The postoperative complication that is not present at admission. The insurance company may not pay for the services provided to take care of the postoperative complication (Garrett 2009, 11).
55. d A condition that pre-exists before admission is considered a comorbidity and because of its presence there will likely be an increase in the patient's length of stay (Schraffenberger 2013, 53).
56. b According to the UHDDS, a significant procedure is one that is surgical, carries an increased risk, and requires specialized training. Because of this, the only answer that is not part of the definition is b (Schraffenberger 2013, 53).
57. d UB-04 supports the transition to ICD-10-CM and ICD-10-PCS. The electronic 837 transaction standard and UB-04 accommodate the national provider identifiers, the health plan identifiers, and migration to the ICD-10-CM and PCS coding systems when they are implemented. This is an increased emphasis on clinical codes (Schraffenberger 2013, 53–54).
58. d The principal diagnosis is defined as the condition "established after study to be chiefly responsible for occasioning the admission of the patient to the hospital for care." Selecting the principal diagnosis depends on the circumstances of the admission and why the patient was admitted (Schraffenberger 2013, 56).
59. c In the inpatient setting, "Rule Out" diagnoses are coded as if they exist. In this case the patient has chest pain and the reason for the chest pain is rule out gastroesophageal reflux disease (GERD). This requires that the GERD be coded as the first listed diagnosis (HHS 2014, Section III.C., 101).



60. d The outpatient code editor (OCE) performs four basic functions: editing the data on the claim for accuracy, specifying the action the fiscal intermediary should take when specific edits occur, assigning APCs to the claim (for hospital outpatient services), and determining payment-related conditions that require direct reference to HCPCS codes or modifiers. Choice "d" is not one of these functions (Smith 2015, 266).
61. d A colonoscopy is the examination of the entire colon, from the rectum to the cecum, that may include the terminal ileum (AMA *CPT Professional Edition* 2014, 275).
62. b When a patient presents for outpatient surgery, code the reason for the surgery as the first-listed diagnosis (reason for the encounter) even if the surgery is not performed due to a contraindication (HHS 2014, Section IV, A, 1., 103).
63. d Total reimbursement is \$3,300 (\$2,000 for the procedure with status indicator S + \$50 for the procedure with status indicator X + \$1,000 for the first procedure with status indicator T + \$250 for the second procedure with status indicator T). Payment Status Indicator T indicates multiple surgical procedures and multiple procedure reduction applies. According to the discounting provision for multiple surgical procedures with status payment indicator T, the highest weighted procedure is reimbursed 100% and the others are reimbursed 50%. Use 50% of the reimbursement for the lower reimbursement APC with status indicator T (Casto and Forrestal 2013, 176–184).
64. a Multiple surgical procedures with payment status indicator T performed during the same operative session are discounted. The highest weighted procedure is fully reimbursed and all procedures with payment status indicator T are reimbursed at 50%. Procedure code 10060 is associated with the lower reimbursement APC with status indicator T, therefore, will be paid at 50% (Casto and Forrestal 2013, 184).
65. d Status S procedures are not discounted when multiple procedures are done (Kirchoff 2009, 12).
66. d There is a specific code that should be assigned—R87.615 (Schraffenberger 2013, 366).
67. d Rule-out conditions are not coded in the outpatient setting and the condition qualified in that statement should not be coded as if it existed, rather the preceding signs and symptoms should be coded (HHS 2014, Section IV.D., 103).
68. a Tools have been developed to facilitate communication to resolve differences between handwritten and dictated reports or other instances of disparate communication. Sometimes documentation in the health record or on the charge ticket needs to be corrected or verified. Many offices develop a form as a common communication tool for use between a coder and a physician. This form can be as simple or complex as the office sees fit (Kuehn 2014, 364).
69. c In order to ensure that outpatient claims were submitted correctly, Medicare Part B claims processing software was developed and is required (Kuehn 2014, 378).
70. b Outpatient prospective payment system (OPPS) is used for outpatient hospital services. A hernia repair procedure can be performed in a hospital outpatient setting, therefore, would be paid under the OPPS (Casto and Forrestal 2013, 4).



71. **b** A payment status indicator establishes how the service is paid in the hospital outpatient prospective payment methodology (Casto and Forrestal 2013, 176–177).
72. **a** There is only one MS-DRG per inpatient discharge but there can be one or more APCs per outpatient visit (Casto and Forrestal 2013, 127, 182). (Also, refer to the Procedures for Coding Medical Record Cases for the CCS Examination in the Introduction of this book for more details.)
73. **c** The correct answer is 45 ( $2.0 \times 10 + 1.5 \times 10 + 1.0 \times 10$ ). Case mix is the sum of relative weights (LaTour and Eichenwald Maki 2013, 496).
74. **a** Compare MS-DRG relative weights for DRG 191, 192, and 193. The lower the relative weight, the lower the payment. DRG 193 has the lowest weight and therefore admitting more patients in this DRG will only lower the CMI; the payment is lowest for DRG 193. DRG 193 has the lowest weight (Sayles 2013, 268).
75. **d** If the data are valid, it means the data are correct (Sayles 2013, 462).
76. **b** Edits can be in the form of setting parameters of data type for a given field such as numeric or Yes/No. Anything that is entered that is not the correct data type triggers an edit (Sayles 2013, 462).
77. **b** Data are considered to be reliable when the values are consistent (Sayles 2013, 52).
78. **c** There isn't a combination code for acute renal failure and hypertension. Acute kidney failure is not the same as chronic kidney disease (Leon-Chisen 2013, 264–265).
79. **d** The disease and procedure indices would be used. Such tasks are usually performed more efficiently by avoiding manual abstraction of the records and utilizing reporting capabilities built in various information systems (LaTour and Eichenwald Maki 2013, 369).
80. **d** The procedure index would be used. Such tasks are usually performed more efficiently by avoiding manual abstraction of the records and utilizing reporting capabilities built in various information systems. In addition to this, filtering the data by using the predetermined RBC values for blood transfusion will sort out the blood transfusion cases and make the ones who did not follow the predetermined criteria easily identifiable (LaTour and Eichenwald Maki 2013, 369).
81. **d** A billing and reimbursement abstracting system tracks assigned diagnosis and procedure codes and identifies which cases to correct (LaTour and Eichenwald Maki 2013, 369).
82. **c** This legislation provides financial rewards to implementation of EHRs that fulfill certain criteria (Sayles 2013, 986).
83. **c** Interoperability allows systems to address functional requirements established by standards development organizations (Sayles 2013, 159).
84. **c** The diagnostic index can be used with the cancer registry data to undertake data quality analysis (LaTour and Eichenwald Maki 2013, 369–371).
85. **c** Coding tasks include review of records assigned, completion of abstracting, and evaluation of coding quality but does not include risk analysis for medical record documentation (AHIMA Standards of Ethical Coding 2008).



86. d Routine computer backups are a preventive measure and assure data saving at predetermined intervals; therefore, data loss is minimized in the event of "down time" (Sayles 2013, 1027).
87. d This question relates to the need-to-know principle. The medical staff member who is not associated with the patient's care does not need to see that patient's record (Sayles 2013, 743–744).
88. a In this case, health information is being used for payment purposes, which is part of the Privacy Rule related to TPO—Treatment, Payment, and Operations (Sayles 2013, 799).
89. b Confidentiality requires that we do not communicate information about a patient or the events that take place with that individual without his consent (Sayles 2013, 719).
90. b Unless there are extenuating circumstances such as the patient not being alive or being incapacitated, the patient is normally the person who provides consent for the release of information (Sayles 2013, 719).
91. d Only conditions or procedures that are supported by documentation can be coded (LaTour and Eichenwald Maki 2013, 356).
92. c Bylaws must include a requirement that a history and physical exam must be completed and documented for each patient no more than 30 days before or 24 hours after admission or registration, but prior to surgery or a procedure requiring anesthesia services (Medicare Conditions of Participation, Medical Staff 2013, 482.22(c)(5)).
93. a Choice "b," is more expensive and not done as frequently as the internal audit. Choices "c," and "d," are not key parts of the internal compliance plans (Schraffenberger and Kuehn 2011, 399).
94. c Careful discharge planning ensures proper follow-up medical or nursing care after the patient leaves the hospital. This is continuity of care (Sayles 2013, 612).
95. c Coding audits performed by physician payers may occur but are not part of the coding compliance plan (Davis and LaCour 2007, 156).
96. b There are seven elements including written standards of conduct, designation of a chief compliance officer, education, a method to receive complaints, a system to respond to allegations, use of audits, and investigation and remediation of systemic problems, for a compliance program. Development of a penalty fund is not one of the seven elements (LaTour and Eichenwald Maki 2013, 853; Sayles 2013, 304).
97. d Only those conditions that are documented by the physician should be coded (LaTour and Eichenwald Maki 2013 356).



**EXAM 2 — PATIENT 1**

PDX	M20.12	Hallux valgus (acquired), left foot
PP1	28296-TA	Correction, hallux valgus (bunion), with or without sesamoidectomy; with metatarsal osteotomy (eg, Mitchell, Chevron, or concentric type procedures)

**Notes on Outpatient 1**

- M20.12 When a patient presents for same day surgery, code the reason for the surgery as the first-listed diagnosis. The search for bunion in the alphabetic index guides to deformity, toe, hallux valgus. M20.12 is the code for a bunion of the left foot. The definition for bunion can also be found in *Dorland's Medical Dictionary* (HHS 2014, Section IV, A.1).
- 28296-TA Third-party payers require submission of CPT codes with various modifiers, such as -TA for left foot, great toe (AMA *CPT Professional Edition* 2014, Modifier Section, inside front cover). This type of bunionectomy is described in the medical record (*CPT Assistant* Dec. 1996, 6; Jan. 2007, 31).

**EXAM 2 — PATIENT 2**

PDX	J45.41	Moderate persistent asthma with (acute) exacerbation
PP1	99284-25	E/M code based on mapping scenario provided
PR2	96365	Intravenous infusion, for therapy, prophylaxis, or diagnosis (specify substance or drug); initial, up to 1 hour

**Notes on Outpatient 2**

- J45.41 This condition brought the patient to the emergency department (HHS 2014, Section IV.G., 104).
- 99284-25 This code represents the evaluation and management code for the facility APV and is done according to the mapping scenario as follows; meds given are = 2 = 5 points, the history is problem focused = 10 points, the exam is extended problem focused = 15 points, the number of tests = 4 = 15 points, supplies = one venipuncture set and one intravenous set = 10 points. 55 total points.
- 96365 The IV infusion is separately reportable and an additional code should be assigned (*CPT Changes: An Insider's View* 2009).
- Note:** The patient came to the ED because of asthma. The code that represents the most complicated process is the evaluation and management of the patient represented by the E/M code and is sequenced first. The starting of the IV is less complicated and sequenced second.



**EXAM 2 — PATIENT 3**

PDX	I25.10	Atherosclerotic heart disease of native coronary artery without angina pectoris
PP1	92928-LD	Percutaneous transcatheter placement of intracoronary stent(s), with coronary angioplasty when performed; single major coronary artery or branch
PR2	93458	Left heart catheterization including intraprocedural injections for left ventriculography, imaging supervision and interpretation

**Notes on Outpatient 3**

- I25.10 The patient has coronary artery disease (CAD) and this is the reason for the heart catheterization (HHS 2014, Section IV.A.1., 103).
- 92928 This code identifies the insertion of the drug-eluting stent into the left anterior descending coronary artery. The stenting procedure and is not reported separately because only the most complex procedure is coded (Kuehn 2014, 262–263).
- LD The -LD modifier is used to identify that the PTCA/stent was completed in the left anterior descending coronary artery.
- 93458 This was a new code in 2011 for cardiac catheterization and angiography (*CPT Changes: An Insider's View* 2011, 186).



## EXAM 2 — PATIENT 4

PDX	G89.3	Neoplasm related pain (acute) (chronic)
DX2	C21.0	Malignant neoplasm of anus, unspecified
DX3	C79.00	Secondary malignant neoplasm of unspecified kidney and renal pelvis
DX4	C78.00	Secondary malignant neoplasm of unspecified lung
DX5	C79.31	Secondary malignant neoplasm of brain
DX6	I10	Essential (primary) hypertension
DX7	R56.9	Unspecified Convulsions
PP1	36569	Insertion of peripherally inserted central venous catheter (PICC), without subcutaneous port or pump; age 5 years or older
PR2	77001	Fluoroscopic guidance for central venous access device placement, replacement (catheter only or complete), or removal (includes fluoroscopic guidance for vascular access and catheter manipulation, any necessary contrast injections through access site or catheter with related venography radiologic supervision and interpretation, and radiographic documentation of final catheter position) (List separately in addition to code for primary procedures.)

## Notes on Outpatient 4

- G89.3 The reason for the patient encounter is to manage pain due to cancer. In this case code for pain associated with neoplasms should be assigned. The underlying neoplasm is reported as an additional diagnosis (HHS 2014, Section I.C.b.5., 38–39).
- C21.0, C79.00, C78.00, C79.31 The primary site of the cancer (anal) as well as all secondary sites are coded (Leon-Chisen 2013, 448).
- I10 These conditions are coded because they are chronic conditions (Leon-Chisen 2013, 35).
- R56.9 No documentation of Epilepsy, and no further specificity other than due to Brain Mets.
- 36569 This is the code for insertion of PICC line in patient age = and older (*CPT Assistant* Oct. 2004, 14; Dec. 2004, 8; May 2005, 13; June 2008, 8).
- 77001 This is coded to represent the fluoroscopic guidance (*CPT Assistant* March 2007, 7; July 2008, 9).



## EXAM 2 — PATIENT 5

PDX	L02.611	Cutaneous abscess right foot
DX2	L97.511	Non-pressure chronic ulcer of other part of right foot limited to breakdown of skin
DX3	G62.9	Polyneuropathy of right lower limb
DX4	E03.9	Hypothyroidism, unspecified
DX5	I10	Essential (primary) hypertension
PP1	10060	Incision and drainage of abscess (eg, carbuncle, suppurative hidradenitis, cutaneous or subcutaneous abscess, cyst, furuncle, or paronychia); simple or single

## Notes on Outpatient 5

- L02.611 The patient has an abscess/cellulitis of the toe (HHS 2014, Section IV.A.1., 103).
- L97.511 This condition is coded as it related to the abscess (Leon-Chisen 2013, 288).
- G62.9 Bilateral neuropathy is coded as it is a polyneuropathy and chronic condition (Leon-Chisen 2013, 35).
- E03.9 This condition is coded as it is a chronic condition (Leon-Chisen 2013, 35).
- I10 This condition is coded as it is a chronic condition (Leon-Chisen 2013, 35).
- 10060 (AMA CPT Professional Edition 2014, 67).



## EXAM 2 — PATIENT 6

PDX	O36.4XX0	Maternal care for intrauterine death, not applicable or unspecified
DX2	O33.4XX0	Maternal care for disproportion of mixed maternal and fetal origin, not applicable or unspecified
DX3	O69.81X0	Labor and delivery complicated by cord around neck, without compression, not applicable or unspecified
DX4	O99.214	Obesity complicating childbirth
DX5	E66.9	Obesity, unspecified
DX6	Z3A.37	37 weeks of gestation of pregnancy
DX7	Z37.1	Single stillbirth
PP1	10D00Z0	Monitoring of products of conception, cardiac rhythm, via natural or artificial opening
PR2	4A1H7FZ	Fetal EKG (scalp)
PR3	0T9B70Z	Drainage of Bladder with Drainage Device, Via Natural or Artificial Opening

## Notes on Inpatient 6

- O36.4XX0 Coded to identify the fetal death (HHS 2014, Section I.C.15.e.1., 55).
- O33.4XX0 Cephalopelvic disproportion (HHS 2014, Section III, 100).
- O69.81X0 Nuchal cord without compression (HHS 2014, Section III, 100).
- O99.214 Obesity in pregnancy and delivery as documented in the history and physical (HHS 2014, Section III, 100).
- E66.9 Coded to add further specificity (Leon-Chisen 2013, 168).
- Z3A.37 Any code from chapter 15 requires the use of a secondary code from the Z3A category to identify the weeks of gestation (HHS 2014, Section I.C.21.c.11., 92–93).
- Z37.1 Outcome of delivery for stillborn code (HHS 2014, Section I.C.15.b.5., 55).
- 10D00Z0 We code the method of delivery based on the documentation, in this case we code a Cesarean delivery. (Leon-Chisen 2013, 337)
- 4A1H7FZ Use of internal fetal monitor (Leon-Chisen 2013, 336). Patient's History and Physical notes that "internal fetal monitor was applied to the vertex after the cervix was dilated." The root operation Monitoring is used followed by Products of conception, Cardiac. Body part value is H (products of conception, cardiac), approach value is 7 (via natural or artificial opening), function/device value is F (rhythm), and the qualifier value is Z (Kuehn and Jorwic 2012, 447–448).
- 0T9B70Z Per the Procedures for Coding Medical Record Cases for the CCS Examination (in the Introduction of this book), "code all procedures that fall within the code range 001 through 10Y but do not code procedures that fall within the code range 2W0 (Placement) through HZ9 (Substance Abuse Treatment) sections."

## Point of Interest on Inpatient 6

1. This is an example of a very unfortunate situation of a baby's death. The intrauterine death is sequenced first because it is the reason for the cesarean section. Although it was thought the patient had cephalopelvic disproportion, the urgency of undertaking the cesarean section was due to the lack of fetal heart tones.



## EXAM 2 — PATIENT 7

PDX	T42.8X1A	Poisoning by antiparkinsonism drugs and other central muscle-tone depressants, accidental (unintentional), initial encounter
DX2	E86.0	Dehydration
DX3	R19.7	Diarrhea, unspecified
DX4	G20	Parkinson's disease
DX5	K21.9	Gastro-esophageal reflux disease without esophagitis
DX6	I12.0	Hypertensive chronic kidney disease with stage 5 chronic kidney disease or end stage renal disease
DX7	I50.9	Heart failure, unspecified
DX8	N18.5	Chronic kidney disease, stage 5

## Notes on Inpatient 7

- T42.8X1A Poisoning due to Sinemet (HHS 2014, Section I.C.19e.5.b., 72).
- E86.0 Dehydration is documented in the H & P and discharge summary and is the focus of treatment. Diarrhea and dehydration are both treated. Sequence the dehydration first because this condition is the focus of treatment (HHS 2014, Section III., 101).
- R19.7 Diarrhea (HHS 2014, Section III., 101).
- G20 Parkinson's disease is documented in the discharge summary (HHS 2014, Section III., 101).
- K21.9 Esophageal reflux is documented in the discharge summary (HHS 2014, Section III., 101).
- I12.0, I50.9 Documented in the medical record and treated. Based on UHDDS criteria, the CHF is evaluated and monitored. Patient is also receiving medication, and CHF is a chronic condition. For all these reasons, this condition should be coded (HHS 2014, Section III., 101).
- N18.5 Both are documented in the discharge summary. *ICD-9-CM Official Guidelines for Coding and Reporting* (HHS 2014, Section I, C, 9, a., 41) require both the combination hypertension code and chronic kidney disease code.

## Point of Interest on Inpatient 7

1. The crux of coding this case revolves around the accidental overdose from Sinemet. This is somewhat challenging because Sinemet is not in the *Table of Drugs and Chemicals*. It is, however, a common anti-Parkinson's drug. An experienced coder should know this drug is associated with this disease and subsequently understand how to code a poisoning.



**EXAM 2 — PATIENT 8**

PDX	D69.3	Immune thrombocytopenic purpura
DX2	K70.30	Alcoholic cirrhosis of liver without ascites
DX3	E10.9	Type 1 diabetes mellitus without complications
DX4	F10.21	Alcohol dependence, in remission
DX5	I25.10	Atherosclerotic heart disease of native coronary artery without angina pectoris
DX6	J95.2	Acute pulmonary insufficiency following nonthoracic surgery
DX7	E78.5	Hyperlipidemia, unspecified
DX8	I10	Essential (primary) hypertension
DX9	Z95.1	Presence of aortocoronary bypass graft
DX10	Z86.73	Personal history of transient ischemic attack (TIA), and cerebral infarction without residual deficits
PP1	07TP0ZZ	Resection of spleen, open approach
PR2	5A09457	Assistance with respiratory ventilation, 24-96 consecutive hours, continuous positive airway pressure

**Notes on Inpatient 8**

- D69.3 Idiopathic thrombocytopenic purpura is documented in the H & P and discharge summary (HHS 2014, Section II, 97).
- K70.30, F10.21 Cirrhosis of the liver is diagnosed with this condition in association with the alcohol use in the progress notes on 6/24. The patient stopped the alcohol one year before admission (Leon-Chisen 2013, 182).
- E10.9 These chronic conditions should be coded as it meets the UHDDS criteria for an “other diagnosis” (HHS 2014, Section III, 100).
- I25.10
- J95.2 Postoperative respiratory distress is documented in the 6/24 progress notes (HHS 2014, Section III, 100).
- E78.5, I10 Chronic conditions that are being treated and therefore meet the UHDDS criteria as “other” diagnoses (HHS 2014, Section III, 100).
- Z95.1 The history of these cardiovascular conditions likely contributes to the overall morbidity of this patient and must be considered as part of the patient’s monitoring during the admission (HHS 2014, Section III, 100).
- 07TP0ZZ Splenectomy documented on the operative report (Leon-Chisen 2013).
- 5A09457, These conditions are coded as they are treating the postoperative respiratory distress based. The insertion of the endotracheal tube is not coded separately (ICD-10-PCS Reference Manual, 93).



**Points of Interest on Inpatient 8**

1. As is evident from the documentation, this case provides practice coding respiratory distress following surgery.
2. This case also provides the opportunity to code alcoholism and a related physical condition.
3. According to the Procedures for Coding Medical Record Cases for the CCS Examination (in the Introduction of this book), 30233R1 transfusion of platelets and 30233N1 transfusion of PRBC are not coded as per exam specifications. "Do not code procedures that fall within the code range 2W0 (Placement) through HZ9 (Substance Abuse Treatment) sections."







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## Additional Resources

AHIMA Certification: [www.ahima.org/certification](http://www.ahima.org/certification)

Kuehn, Lynn M. and Therese M. Jorwic. 2015. ICD-10-PCS An Applied Approach. Chicago: AHIMA

## HCPCS and CPT Coding

Principles of CPT Coding. Chicago: American Medical Association.

Buck, Carol J. Step-by-Step Medical Coding, 2015 Edition. St. Louis: Saunders.

## HCPCS codes:

[http://www.cms.gov/Medicare/Coding/HCPCSReleaseCodeSets/HCPCS\\_Quarterly\\_Update.html](http://www.cms.gov/Medicare/Coding/HCPCSReleaseCodeSets/HCPCS_Quarterly_Update.html)

## Regulatory Guidelines, Data Quality, and Compliance

### Books

*DRG Desk Reference. 2015. Ingenix-Optum.*

### Websites

APCs and status indicators: <https://www.cms.gov/Medicare/Coding/OutpatientCodeEdit/Downloads/FinalSumofDataChngsSpecV160.pdf>

Common medications and associated diseases: [www.rxlist.com](http://www.rxlist.com)

Decision trees, stress management, and other topics: <http://www.mindtools.com/dectree.html> (*Note: Decision trees form the basis of DRG trees, which are found on the national exam. It is important to review this site.*)

DRG grouper (free): [www.irp.com](http://www.irp.com) (*Disclaimer: This software application may contain errors and is not endorsed or developed by the author or AHIMA.*)

List of Medicare severity diagnosis-related groups (MS-DRGs), relative weighting factors, and geometric and arithmetic mean length of stay—FY 2015 Final Rule <http://www.oregon.gov/oha/healthplan/tools/Version%2032%20DRG%20Weights.pdf>

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